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INSIDE DOPE

Learn to live and laugh—
Thus delay your epitaph

By GEORGE F. TAUBENECK

Stories of the Week
They Couldn't Wait In Kansas City
Incidental Intelligence
Worst Gag of the Week
Definitions of the Week
Summertide Gossip
Long Live Cordia Rostock
Vacation Verse
Out of Our Mailbag

Stories of the Week

At the peak of his novelistic success author Louis Bromfield was hired by a movie producer. Two thousand simoleons a week he was paid for sitting around and doing nothing.

Hyper-active Looey grew tired of that inaction quickly. In a stormy session he demanded a writing assignment forthwith.

"Take it easy, my boy," soothed the cinema magnate. "Collect your money and enjoy yourself. All we want from you is your name, Mr. Bromberg."

Parked in front of a tiny tobacco shop was a spanking new Cadillac.

"Who belongs to this?" queried the cop-on-that-beat.

"It's mine," half-smiled the proprietor.

"Don't tell me the cigarette business is that good! Not with all this cancer scare. You selling marijuana as a sideline?"

"Goodness, no. You see, I can't afford a telephone. Take all my phone calls at the Cadillac agency next door. And how many times can you look at something beautiful without wanting it?"

They Couldn't Wait In Kansas City

When mid-July temperatures bumped 115° F. in Kansas City recently, a big "run" on room coolers followed.

Last week Howard Scaife, Hotpoint's general sales manager, told "Dope" that their Graybar distributor in Sam Glass's home town stayed open nights and week-ends. Dealer's truck awaited shipments up until 1:30 a.m.

Soon as a new batch of room coolers arrived, they were unloaded directly from truck to truck. No warehousing. Immediate sales by the dealers, too.

Just goes to show what a hot spell can do for the air conditioning business.

Incidental Intelligence

It might interest you to know that, according to a National Labor Relations Board report, Chicago has a Breezy Seat Manufacturing Co., and Dallas has a Better Monkey Grip Co.

I am not a politician, and my other habits are good.—ARTEMUS WARD.

Judging by the type of notoriety that sometimes leads to a Hollywood contract, the way of the transgressor is hard to beat.—*Wall Street Journal.*

Worst Gag of the Week

(And we do mean *awful.*)

Into a saloon comes a hungry termite. He crawls on top of the mahogany bar and demands:

"Where is the bar tender?"

Definitions of the Week

Middle Age: When you can't do all the things you'd have done in youth if you'd had the money.

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THE NEWSPAPER OF THE AIR CONDITIONING AND REFRIGERATION INDUSTRY

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ASRE Debate Size Over Proposal on Name Change

By C. Dale Mericle

SEATTLE — Members of the American Society of Refrigerating Engineers soon will be asked to vote on important constitutional changes, including a new name proposed for the group:

"American Society of Refrigerating and Air Conditioning Engineers."

This follows action taken at the society's 41st semiannual meeting held at the Olympic hotel here July 11 to 14 and attended by nearly 500 members and guests.

The move to change the name aroused opposition of some members present whose chief objection, they explained, was to putting the matter to a vote of the general membership (by mail) without further study.

A feeling of urgency, however, prevailed among backers of the measure.

(A similar change in name has been proposed for the American Society of Heating and Ventilating Engineers. At the latter's recent summer meeting in Swampscott, Mass., ASHVE President R. N. Hunter suggested adoption of the name "American Society of Air Conditioning Engineers."

("The present name doesn't fully and adequately describe the society's interests," said Hunter, in attendance at the ASRE meeting. "Final action," he added, "will probably be taken at the ASHVE annual meeting this January in Philadelphia.")

ASRE members also will have to vote soon on other sweeping changes in the society's constitution. These proposals would stiffen qualifications for "members" and "associate members," while establishing the new grade of "affiliate member" for non-technical personnel.

These changes are needed, it was explained, so that ASRE can qualify for the Engineers Joint Council.

In addition, the amendments, if approved, will shift the annual meeting date from winter (November-December) to midyear with national officers and members of Council taking office at the spring meeting.

Although the technical program of the Seattle meeting was widely acclaimed as "one of the best in years," and Pacific Northwest members received much praise for their handling of entertainment and general arrangements, the society's business affairs provided the major topic of discussion.

It was learned unofficially, for example, that a 10-man joint committee consisting of five representatives each from ASRE and ASHVE was recently named to explore possibilities of closer cooperation between the two societies because of their overlapping interest in the field of air conditioning.

The joint committee is reportedly giving close attention to such matters as possible consolidation of publications.

Proposal for changing ASRE's name was presented to the society on behalf of the New York and New Jersey sections by Charles Grote, director for Region I, who cited substantially the same reason

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Many Changes by FHA In Home Cooling Guide

WASHINGTON, D. C.—The Federal Housing Administration has entirely rewritten and completely revised its guide on minimum requirements for residential summer air conditioning, a study of the recently issued Mechanical Engineering Bulletin ME-12 reveals.

The text of the new bulletin appears on pages 10 and 11 of this issue.

The bulletin, which guides FHA field offices in their acceptance of residential air conditioning systems for FHA financing, replaces bulletin ME-10 which was issued in July, 1953.

Though the same basic principles apply as in the previous bulletin, there have been many changes in

(Concluded on Back Page, Col. 1)

Cary Was Really Hot!

CLEVELAND — Pro Golfer Cary Middlecoff, who kicked up quite a fuss when he quit a Cleveland golf tournament at which he was the defending champion, said he did so because he had been "bounced out" of an air conditioned hotel room which had been reserved for him.

He complained that he was sent to an "upstairs motel room where the temperature was 107 degrees."

Packard-Studebaker May Consider Other Products After Merger

DETROIT—If the proposed Packard-Studebaker merger goes through, there is a strong possibility that the new corporation that emerges from it may diversify its manufacturing activities and expand into other fields—possibly major appliances and air conditioning.

One source close to Packard declared that the new firm would like either to take over some business in a line other than automotive, or set up its own, to give the firm some of the "stabilizing" character that American Motors has with its Kelvinator Div.

But a Packard spokesman said

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FTC Refuses Request Of Ice Cream Firms To Settle Complaints

WASHINGTON, D. C.—A Federal Trade Commission hearing examiner has rejected proposed settlements of three cases in which ice cream manufacturers are charged with unfair methods of competition.

Examiner Everett F. Haycraft declined to accept proposed consent orders in each of the following cases: Carnation Co., Los Angeles; Arden Farms Co., Los Angeles; and Foremost Dairies, Inc., Jacksonville, Fla.

The FTC issued its complaint early this year against ice cream companies in major marketing areas throughout the country, charging unfair practices particularly along the lines of "giving away" refrigeration equipment. However, after a number of trial hearings had been postponed, the three above-named companies entered into negotiations for a "settlement," and it was thought that this might be the way in which the entire matter would be handled.

But the Refrigeration and Air Conditioning Contractors Associa-

(Concluded on Page 4, Col. 4)

FTC Out Against Law On 'Tighter' Franchise

WASHINGTON, D. C.—The Federal Trade Commission has informed Congress that it opposes new legislation that would exempt automobile manufacturers from anti-trust laws for preventing their dealers from selling cars to unauthorized persons for further resale.

Earl W. Kintner, general counsel for the FTC, told the Senate Business and consumer interests subcommittee that Senate bill 3596 introduced by Senator Everett Dirk-

(Concluded on Page 4, Col. 4)

Files Complaint with FTC On Hotpoint Filter Ads

WASHINGTON, D. C.—W. B. Watterson, president of Air Maze Corp., Cleveland, and head of the Air Filter Institute, has filed a complaint with the Federal Trade Commission about Hotpoint magazine advertisements containing such claims as: "New Hotpoint electronic filter traps 102% more dust, dirt, pollen than any other room air conditioner."

The advertising in question ap-

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How's Business In Air Conditioning?

DETROIT — How [illegible] conditioner sales have been going since the first of July depends considerably on just what part of the country you're talking about, but the general over-all picture has been good, and in some areas which have had an extended heat wave, retail sales are reported to have been "tremendous."

Dallas Dealers 'Swamped'

DALLAS — Dealers handling room air conditioners say that they have been "swamped" with business since the first of July, and some of the big outfits like Duke Doyle declare that they have been forced to go after new stocks.

A representative of Carrier-Bock Co., distributor, declared that "July and August may give us the business we should have done in May and June."

City Inspectors Behind

TULSA, Okla. — Gordon Appliance Stores here reportedly sold 150 room air conditioners in three days during the early July hot spell.

This compares to "expected sales of about 12 units in the same period and the store was out of stock on three lines of air conditioners which it handles.

City refrigeration and air conditioning inspectors have been pressed to keep up with the rush of new installations, and in one recent 7-day period they made close to 1,000 inspections of new installations.

'July Boom'—Frigidaire

DAYTON — Thus far in July Frigidaire room air conditioners have been selling at retail at a rate nearly double that of last year, reports H. F. Lehman, Frigidaire sales manager.

"As a result of the cold spring, retail sales in May and early June were slower than was anticipated," Lehman said.

"However, with the arrival of hot weather in mid June, sales of room units at retail jumped to about 90% above last year and an even greater acceleration has been noted during the current heat wave."

'54 K. C. Sales Double '53

KANSAS CITY, Mo. — With Kansas City sweltering under temperatures which have hit over 105° F. for several days in a row, it is estimated that 15,000 room air conditioners have been sold here this year. It is believed that 1954 sales will double the 1953 figure.

Prices Hurt in N. Y.

NEW YORK CITY—The situation on room air conditioner sales in the New York City area is "very ungood," to quote one distributor.

He points out that even if the area got a big spell of hot weather (which it hasn't had up to the present) the cut price patterns are so established that it would be difficult to move much merchandise at a profit. Macy's has been advertising a ¾-hp. unit for $189, and there is a ⅓-hp. unit being offered with a $100 price tag.

"One of the best things we can hope for this year is that the chaotic price situation here will force some of the marginal manufacturers and retailers out of the market by next year," one distributor commented.

Residential Jobs Up

FT. WORTH—Members of the Ft. Worth Air Conditioning Association report that there have been increases in sales of room air conditioners ranging from 20 to 150% in the period from May 1 to July 15, 1954, over a similar period in

(Concluded on Page 4, Col. 1)

XUM

READING

THE NAME TO REMEMBER FOR QUALITY COPPER TUBING

FOR REFRIGERATION & AIR CONDITIONING EQUIPMENT

READING COPPER TUBE

READING
TUBE CORPORATION
EMPIRE STATE BUILDING
NEW YORK 1, N. Y.
WORKS: READING, PA.

'Perfect Pair' Promotion

West Penn Power Campaign Concentrates On Freezers, Ranges During July, August

GREENSBURG, Pa.—The "perfect pair" of appliances to promote together are the electric range and the food freezer, and the perfect time to promote them is in the months of July and August, believes West Penn Power Co.

With this in mind, the utility is concentrating newspaper and billboard advertising on these products during the period, and is urging dealers not only to tie in, but to hold demonstrations of the "perfect pair" during these months.

West Penn advances these reasons for the promotion of the electric range and food freezer as the "perfect pair" during the months of July and August:

1. The range and freezer are perfectly suited for combined promotion. Each possesses features which homemakers want, and which can be dramatically presented at group demonstrations.

It makes little difference in the demonstration whether you cook or blanch food on the range and put it in the freezer, or take frozen food from the freezer and cook it on the range. The whole process is one of "using one to sell the other."

2. Profit possibilities are good because 23% of the year's freezer business and 20% of the year's volume on ranges is chalked up during July and August.

3. An industry-wide campaign supported by manufacturers, distributors, and utility companies is under way to create interest.

Amana Appoints Bower Engineering Section Head

AMANA, Iowa—Amana Refrigeration, Inc. has announced the appointment of Warren R. Bower as head of the freezer cabinet design section of the firm's engineering department.

Bower, who joined the Amana engineering department in March, 1951, will be responsible for the design of all freezer cabinets.

Before joining Amana, he was design and sales engineer for the Chemical Equipment Co., of Los Angeles, and prior to that was research laboratory analyst for the Boeing Aircraft Co. of Seattle.

A resident of Cedar Rapids, Iowa, Bower served as an aviation engineering officer in the U. S. Navy during World War II. His pre-war experience included engineering work at Thompson Aircraft Products, Inc., Cleveland.

Chicago Food Freezer Festival Will Cost $15,000 and Last Seven Weeks

CHICAGO — A Food Freezer Festival, sponsored by the Electric Association, 14 distributors of name brand home freezers, the Commonwealth Edison Co., and one food brokerage firm, will open at the Marquette building of the Edison Co. here on July 21.

The Food Freezer Festival will continue for a seven-week period, ending Sept. 3.

Home economists will present demonstrations in the Festival Theater twice daily, at 12:15 and 1:30 p.m., giving (a) hints on how to prepare easy, low-cost meals using frozen food, and (b) suggestions on new ways to freeze and package leftovers, bakery goods, vegetables, meats, etc.

Sam Sotos, president of Hofherr Meat and Provision Co. will give a meat cutting demonstration each day and explain how freezer owners can save money by purchasing meats in large quantities and storing them in a home freezer.

The proper use of freezing compartments of refrigerators will also be emphasized during the show.

William Niemann, of Kelvinator Div., Nash-Kelvinator Sales Corp., is chairman of the committee in charge of the Food Freezer Festival. The firms participating in the seven-week exhibit are:

Appliance Distributors, (Admiral); Main Line Distributors, Inc., (Amana); Aberdeen Engineering Co., (Ben-Hur); Triangle Industries Corp., (Deepfreeze); Frigidaire Sales Corp., (Frigidaire); R. Cooper, Jr., Inc., (General Electric); R.C.A. Victor Dist. Corp., (International Harvester); Kelvinator Div., Nash-Kelvinator Sales Corp., (Kelvinator); Maytag-Chicago Co., (Maytag); The Sampson Co., (Norge); Philco Distributors, Inc., (Philco); Graybar Electric Co., Inc., (Revco Chill Chest); United Refrigerator Co., (United); Westinghouse Electric Supply Co., (Westinghouse).

E. A. Aaron & Bros., frozen food distributor, is cooperating in the Festival by furnishing frozen food to be used in the demonstrations and also to be given as door prizes during Festival Theater demonstrations. The main door prize will be a supply of frozen food, enough to serve several complete dinners for four.

In an effort to acquaint women particularly with the advantages of Freezer Living, 66 women's organizations have been invited to participate in the Festival.

The Electric Association has agreed to pay the treasury of such organized women's groups 50 cents for each lady in their group who attends the demonstrations.

There must be at least 20 ladies in the group and they must attend as a group. Every lady who attends the show will receive a special frozen food prize and in addition will be eligible for the drawing of the door prize.

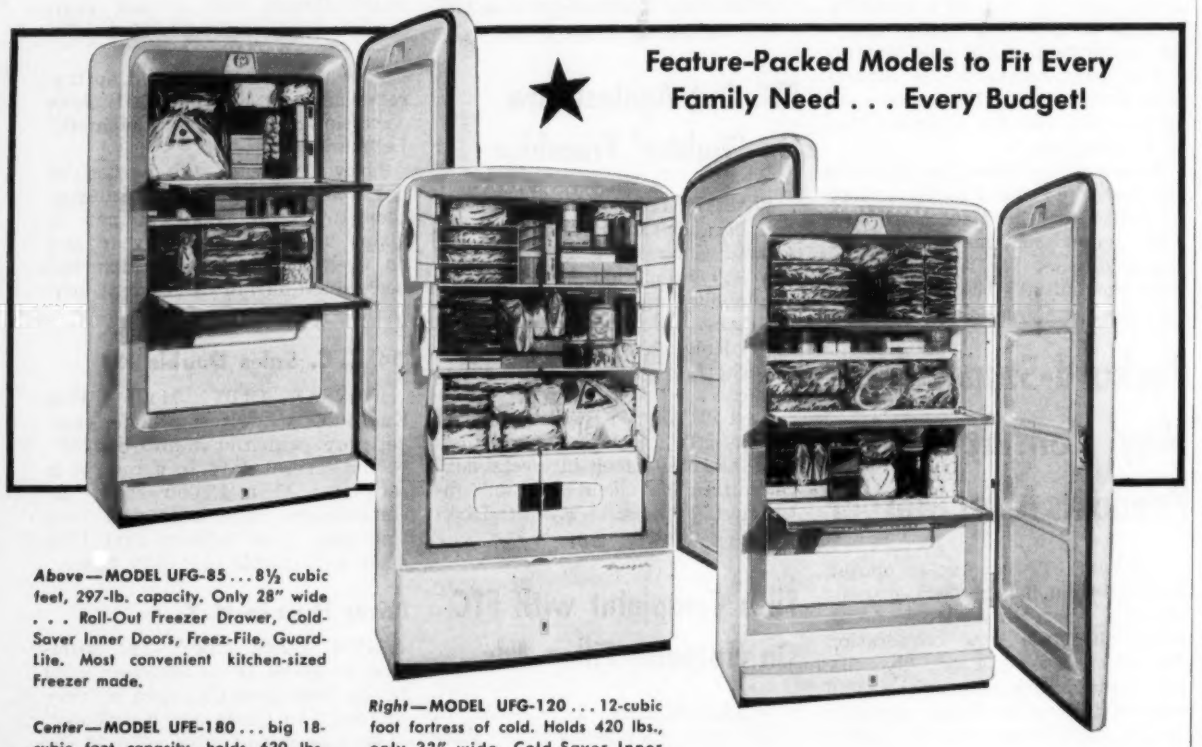
Electrical appliance dealers who sell home freezers are invited to display Food Freezer Festival banners on store windows and also feature models of home freezers which will be offered as "Freezer Freddy Specials" during the seven-week festival.

The freezer industry will expend $15,000 in this promotion. Based on previous experience, an attendance of more than 175,000 is expected.

1,200,000 FREEZERS SOLD IN 1953 ··· 4TH LARGEST APPLIANCE BUSINESS ··· 1954 OUTLOOK EVEN BRIGHTER!

With A WESTINGHOUSE FREEZER Franchise You've Got The BLUE CHIP Line!

Feature-Packed Models to Fit Every Family Need . . . Every Budget!



Above—MODEL UFG-85 . . . 8½ cubic feet, 297-lb. capacity. Only 28" wide . . . Roll-Out Freezer Drawer, Cold-Saver Inner Doors, Freez-File, Guard-Lite. Most convenient kitchen-sized Freezer made.

Center—MODEL UFE-180 . . . big 18-cubic foot capacity, holds 630 lbs. Only 36" wide . . . Cold-Saver Inner Doors, Freez-File, Pastry Rack, other top convenience features.

Right—MODEL UFG-120 . . . 12-cubic foot fortress of cold. Holds 420 lbs., only 32" wide. Cold-Saver Inner Doors, Freez-File, Guard-Lite, Roll-Out Freezer Drawer. Ideal size for the average family.

Cash in on this Westinghouse 60 Day "FREEZIN'-SEASON" Push... Beginning July 1st

½ MILLION $$$$ ADVERTISING PROGRAM

- Magazine Ads
- TV Demonstrations by Betty Furness on Westinghouse STUDIO ONE
- Big Space—Timely—Hard-Selling Newspaper Advertising
- Mass Demonstrations Featuring "Freezin'-Season" Prospect Parties

YOU CAN BE SURE...IF IT'S Westinghouse

Westinghouse Offers 3 New Home Freezing Guides On Fruits, Vegetables, Meats, Ready-Cooked Foods

MANSFIELD, Ohio—Three new booklets on home freezing—containing the most recently developed recipes and methods for freezing fruits, vegetables, meats of all kinds, and ready-cooked foods—have been made available by the Westinghouse Electric Appliance Div. here.

Edited by Mrs. Julia Kiene, director of the Westinghouse Home Economics Institute, the three "Home Freezing Guides" have been developed over a period of five years. Through its research and testing during this period of time, the Institute has discovered many new ways for freezing foods that were unknown when earlier editions of the "Guides" were published in 1949.

"How to Freeze Fruits and Vegetables" covers the subject of: how to pick fruits and vegetables for freezing, preparation of these foods for freezing, and how these foods should be thawed or cooked when removed from the freezer for serving.

"How to Freeze Meat and Game, Poultry, Fish and Dairy Products" is the second guide available. This guide points out the care which must be taken in wrapping meat for freezing, how to select and prepare the meat for freezing, and the length of time the various meats, fish, and dairy products may be safely kept frozen.

The third guide is "How to Freeze Ready-Cooked Foods." "Freezing ready-cooked foods in advance of their needs saves time," points out Mrs. Kiene in this guide which covers proper freezing techniques for breads, sandwiches, cakes and cookies, pies and pastries, and other desserts. Each of the three guides is 16 pages in length.

The "Home Freezing Guides" may be obtained for five cents each.

Free Step Stool Proves Stepping Stone to Sales

GARY, Ind.—In what turned out to be the store's most successful freezer promotion, Goldblatt's recently offered to give a kitchen step stool to consumers who would try out an 8-cu. ft. Philco freezer for 60 days.

The store pointed out that those who took advantage of the free-trial offer could keep the $11.75 stool whether they purchased the freezer or not. The $299.95 freezer was advertised for $199.88.

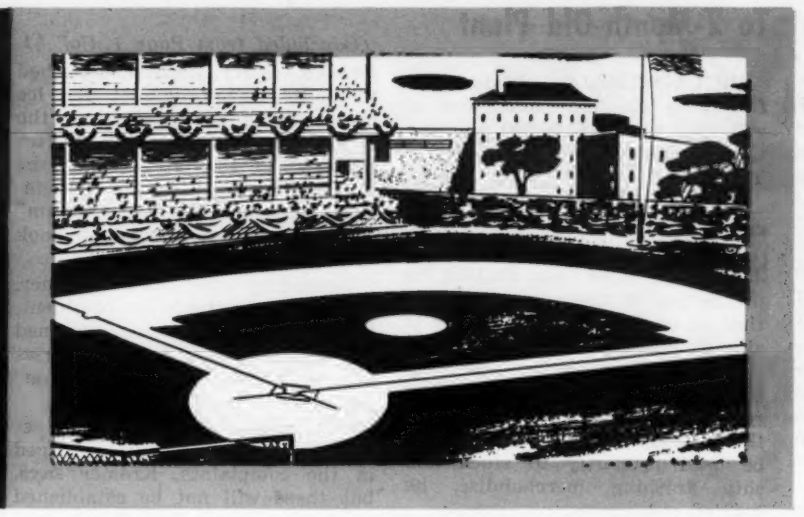
Quicfrez Names Fleck To Chief Engineer Post

FOND DU LAC, Wis.—George J. Fleck has been appointed chief engineer of Quicfrez, Inc. here, it was announced recently by H. H. Ryan, vice president-sales.

Fleck, a graduate of the Detroit Institute of Technology, was formerly refrigeration engineer of Coolerator Div. of International Telephone & Telegraph Co. for five years. Prior to that, he was in the refrigeration section of Norge Div. of Borg-Warner Corp.

XUM

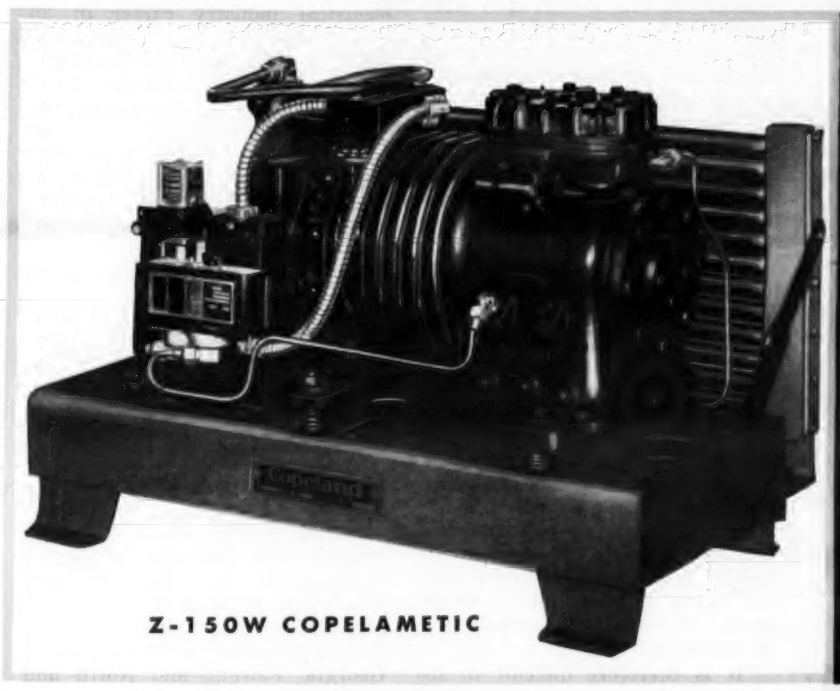
What's behind a tradition?



Baseball teams let their fans know when the team is playing by flying the flag at the top of the mast. When the team is on the road the flag is put away. Whenever the weather makes it questionable whether the game will be played or called off, the first question the dyed-in-the-wool fan asks is: "Is the flag flying?"

This tradition was adopted by baseball teams from the theatrical world. In Shakespeare's day, The Globe Theatre was London's popular entertainment spot. Since it was an open-air theatre, performances could be rained out much as are baseball games today. Both to advertise there would be a performance and to advise patrons whether the play would be performed or cancelled, the Globe Theatre management raised a pennant to the top of the flagpole indicating "the show goes on."

you're in there pitching with the Copeland complete line of refrigeration equipment



Z-150W COPELAMETIC

303-A OPEN TYPE

WELDED HERMETIC

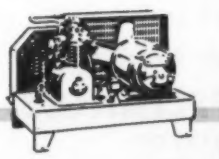
In baseball, it's the well-rounded team that wins consistently. In refrigeration, it's the complete, balanced Copeland line that offers widest choice of types and models . . . plus consistent product quality and top performance. You serve a greater share of the refrigeration field with the diversified Copeland line.

Copeland's team begins with belt-driven compressors . . . flexible, job-proven units with a quality reputation for durability and low maintenance. Air-cooled from ¼ HP through 3 HP. Water-cooled from ⅓ HP through 7½ HP. Combination air-water-cooled are available. Belt-driven models are also built for automotive use.

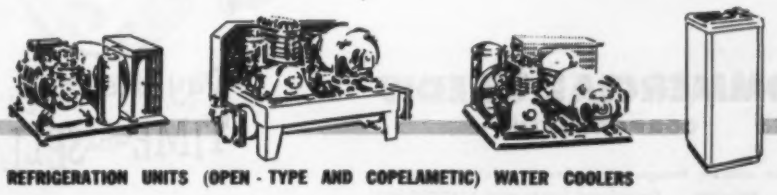
There's sound engineering in the Copeland welded motor compressor . . . with twin-cylinder design for quiet, vibration-free operation. Higher capacities and lower operating temperatures are consistently obtained with Copeland welded units . . . testifying to well-engineered components and precision manufacture. Sizes ½ HP, ¾ HP, heavy ¾ HP, 1 HP.

Copeland makes the famous *Copelametic* . . . the accessible hermetic. Belts, seals and manual oiling are eliminated, for trouble-free performance. Yet vital working parts are accessible for on-the-spot repairs. Suction gas cooling is also available in some sizes. There are remote and self-contained Copelametic models. Air-cooled through 3 HP. Water-cooled through 7½ HP.

WRITE FOR CATALOGS



Copeland
DEPENDABLE *Electric* REFRIGERATION



REFRIGERATION UNITS (OPEN-TYPE AND COPELAMETIC) WATER COOLERS

COPELAND REFRIGERATION CORPORATION · SIDNEY, OHIO

How's Air Conditioning?--

(Concluded from Page 1, Col. 5)

1953. Much of the increase has come in the past three weeks, when temperatures have gone over the 100° F. mark daily.

In 1953 there were 364 central-type residential cooling systems installed in Ft. Worth. According to Edwin D. McCoy, executive secretary of the Ft. Worth Association, dealers estimate that 1954 installations of complete residential systems will increase over this by 150 to 200%.

More Jobs Than Men

AUSTIN, Texas—The room air conditioner buying boom in recent weeks in Texas created more installation jobs than there are available qualified personnel to handle them, reports the Texas State Employment Commission.

Dealers Re-Order Daily

WICHITA, Kan.—O. A. Sutton Corp., producer of air conditioners located in this center of the "national weather hot-spell," says that sales by dealers in the area are on the fabulous side.

"We know of some retailers that are selling 35 to 40 units a day, and re-ordering as often as seven or eight times a day," said a company representative, who further stated that the firm is "shipping right off the production line."

Packard-Studebaker--

(Concluded from Page 1, Col. 3)

that it would be "impossible to even discuss such a matter before the stockholders decide on Aug. 17 whether or not they approve the merger." However, the spokesman did say that "certain appliance companies had sent up 'trial balloons' indicating that they might be willing to sell out to Packard.

Observers also feel that there is a hint of a trend to diversification in the proxy statement being sent to stockholders, which states:

"Particularly with the acquisition of the Studebaker properties and assets, it may be desirable to enable the company to expand its operations through the addition of other types of businesses."

It is further pointed out that the stock authorization in the proposed new corporation will be sufficient to permit any "needed expansion" into other fields. There would be a total of 15 million authorized shares, with a total of 6,440,455 outstanding under the proposed "trading" in the merger.

And finally, there is the fact that J. J. Nance, Packard president who would head up the new corporation, had long years of experience in the appliance and air conditioning fields before joining Packard, and had been president of Hotpoint, a major factor in the appliance field, just before joining Packard. He had experience in air conditioning with Frigidaire.

Jordon Plans Addition To 2-Month-Old Plant

PHILADELPHIA — Jordon Refrigerator Co. has announced it will construct a $100,000 addition to its new $1,000,000 plant at 7900 Tabor Rd.

The present building was dedicated on May 22.

Frank Fogel, president, said Jordon has more than doubled its production in the new plant, but that an acute shortage of space is already being felt.

The addition, which will comprise about 12,000 sq. ft. on the rear of the huge building along the Reading Railroad siding, will be used primarily to stock and ship finishing merchandise, he pointed out.

Construction of the new addition will begin about Aug. 1 and will be completed by the end of October, he said. It will permit the loading of eight freight cars simultaneously instead of the current five.

"The demand for our products is such that we cannot fill immediate orders," Fogel said, "we are striving to keep up to date with customer orders by adding production lines."

"Our long range plans include at least three additional buildings the same size as the present one," he added, "but immediate requirements call for extra storage and shipping space."

Dairy Complaints--

(Concluded from Page 1, Col. 4)

tion (RACCA), which had pushed the FTC action against the ice cream firms, declared that the settlement asked for by the ice cream firms wouldn't eliminate the unfair practices, and the association made use of a "telegram" campaign to Congressmen to look into the affair.

According to Ray Kromer, RACCA executive vice president, the attorney previously assigned to the ice cream company cases has been replaced by two new attorneys.

New hearing dates are being set for all of the companies charged in the complaints, Kromer says, but these will not be established until after Labor Day. One reason for this is that the refrigeration industry people who will appear as witnesses, as well as the ice cream companies, are now in their busiest season of the year.

RACCA is alerting local contractor group committees who have been gathering evidence for these cases to pick up where they left off, and work with the new FTC attorneys.

Franchise Law--

(Concluded from Page 1, Col. 4)

sen, Illinois Republican, violates the basic policy of the anti-trust laws.

He declared that one reason FTC opposes the bill is that if it were passed, it would open the way for demands by other manufacturers for similar legislation affecting their industries.

Admitting that FTC has no suggestions for further legislation on the subject, Kintner indicated that the commission felt that laws already on the books were adequate to deal with the situation.

He pointed out that manufacturers of branded items could protect themselves under the fair trade laws if they wanted to.

"Inasmuch as the practice of 'bootlegging' cars depends upon sales by franchised to unfranchised dealers at prices substantially lower than the prevailing retail price, a motor vehicle manufacturer is already in a position under the 'fair trade' laws to stop 'bootlegging' by contracting with its dealers whereby the dealers may not resell motor vehicles below prices set by the manufacturer," he explained.

"It is therefore difficult to see any urgent necessity, if in fact there is any need at all, for the legislation proposed," he concluded.

Cryogenic Conference Set for Sept. 8 to 10

WASHINGTON, D. C. — The 1954 Conference of Cryogenic (very low temperature refrigeration) Engineering will be held Sept. 8-10 at the NBS-AEC Cryogenic Engineering Laboratory in Boulder, Colo., the National Bureau of Standards announced recently. The bureau is sponsoring the conference.

The first meeting of its kind in this important new field, the conference will treat engineering problems in the temperature range below 150° K (-123° C.).

Plans call for the presentation of technical papers which will deal chiefly with problems encountered in the production, storage, transportation, and use of low temperature liquified gases — hydrogen, nitrogen, and oxygen.

Information regarding registration and reservations may be obtained from M. M. Reynolds of the NBS Boulder Laboratories, who is chairman of the conference.

Charles G. Pyle, NAED Executive Director, Dies

NEW YORK CITY—Charles G. Pyle, executive director of the National Association of Electrical Distributors, died July 16, 1954, in Lawrence hospital, Bronxville, N. Y., after an illness of several months.

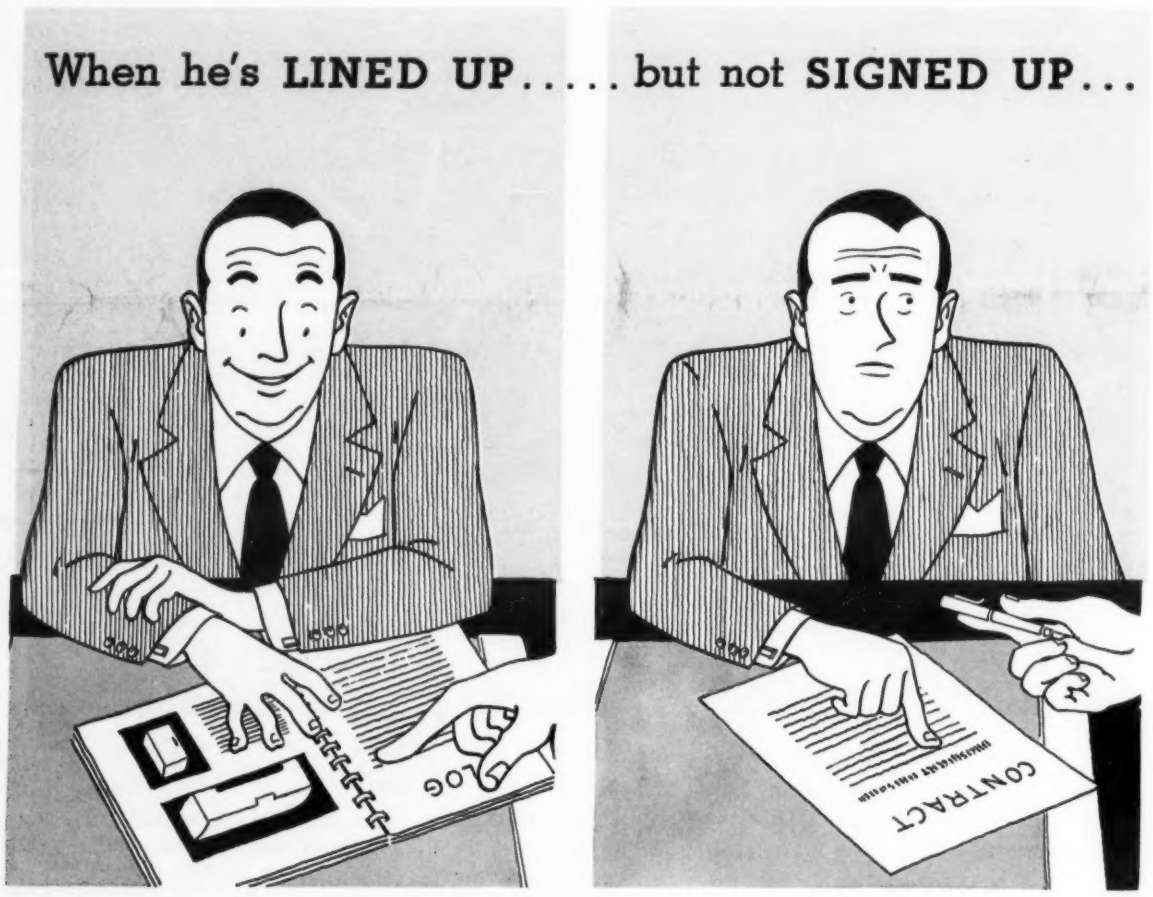
His death brought to an end an electrical industry career of 36 years duration. Born in Pittsburgh, Nov. 30, 1893, Pyle was employed for 24 years by the Sylvania Electric Co., attaining the position of general sales manager before he resigned to join the National Electrical Wholesalers Association in December, 1942 as its managing director. During his tenure the organization was renamed the National Association of Electrical Distributors.

He is survived by his wife, Margaret Gildea Pyle; a son, Charles G. Pyle, Jr.; and three grandchildren.

United Refrigerator Names Stansell Regional Sales Chief

HUDSON, Wis.—Noah A. Bower, general sales manager of United Refrigerator Co., has appointed Charles E. Stansell of Atlanta as regional sales manager to cover the southeastern area comprising Georgia, Florida, and North and South Carolina.

Stansell will represent both domestic and commercial products. He will headquarter in Atlanta.



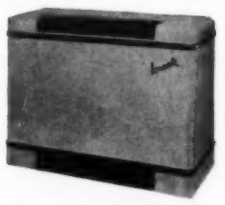
Be ready to ***sign him up*** *with*

COMMERCIAL CREDIT PLAN FINANCING

MOST of your prospects need their working capital and usual lines of credit for *current* operations. To make sure they buy *now* . . . and from YOU . . . include COMMERCIAL CREDIT PLAN financing in your recommendations. More than 300 offices to serve you nationally. When can we tell you our story? Phone our office in your city or write or wire COMMERCIAL CREDIT CORP., 14 Light St., Baltimore 2, Maryland.

COMMERCIAL CREDIT CORPORATION

A service offered through subsidiaries of Commercial Credit Company, Baltimore . . . Capital and Surplus over $145,000,000 . . . offices in principal cities of the United States and Canada.



KRACK

BREEZ-E-FEX

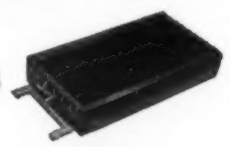
Remote Type
Console Room Conditioner

Skillfully-designed console room conditioner, in 5 sizes from ½ to 2 tons, for use where duct work is prohibitive in cost or where individual room control is desired. Available for use with Freon or chilled water; heating coils optional. Suntan enamel finish, baked on. Especially suitable for multiple installations.

AIR-E-FEX

AIR CONDITIONING COILS

⅜"-½"-¾" Tube Surface



Tailor made to meet your dimensional or capacity requirements. Electro-tin plated copper tubing and aluminum fins. Tested under water at 350 lbs. PSIG. Compactly built and correctly engineered for long lasting service and balanced performance.

For More Information, Write for Krack Bulletin 62854

REFRIGERATION APPLIANCES, INC.

923 W. LAKE STREET
CHICAGO 7, ILLINOIS

ALSO AVAILABLE: Air Cooled Condensers, from 1 to 7.5 Tons. Inquiries invited.

YOU CAN BE A SALES LEADER WITH Deepfreeze®

Deepfreeze home freezers are available in 8 models, capacities from 8 to 24 cu. ft. Imperial Model C-146 (13.59 cu. ft.) illustrated above.

Save money, live better with a Deepfreeze Home Freezer

Cornell University School of Nutrition made a survey of freezer families. Every family interviewed said, "We couldn't get along without the freezer, we have what we want when we want it!"

Do you own a home freezer? If you don't, here is what you are missing.

With a Deepfreeze freezer you can have a greater variety of quality food at your fingertips—ready to serve any time, at lower cost.

You can shop less often—only in nice weather.

You're always prepared for unexpected guests, or any occasion that calls for food.

You can enjoy this summer's strawberries and corn on the cob next January—or any type of food any season of the year.

Because you can buy in quantity, cook in quantity, you can make worthwhile savings in time, work, food and money.

There is no reason why you should be missing the pleasure, convenience and economy a genuine Deepfreeze home freezer can give you.

With a Deepfreeze Home Freezer . . .

1. You shop less often—only in nice weather.
2. You cook and bake ahead for many meals.
3. You can buy in quantity at money saving prices.
4. You're always prepared for unexpected guests.
5. You cut meal preparation time and effort.
6. You do away with leftovers . . . avoid all waste of food.
7. You have greater varieties of food on hand always.
8. You enjoy all foods any season of the year.
9. You always have larger quantities of food on hand.

Imperial Model CU-126 (12 cu.) illustrated above. Available also in Model CU-196 (18.6 cu. ft.)

Deepfreeze Upright Freezers, Too!

Deepfreeze has a complete line of freezers with a model to fit any size family or purse. Beautiful Deepfreeze Upright Freezers are available for the family where there is minimum floor space.

Send for this beautiful book on home freezing.

Deepfreeze Home Appliances, Dept.
North Chicago, Illinois

Gentlemen:
Please send "Invitation to Better Living," the illustrated 64-page book that tells me how to select and prepare foods for freezing. I have enclosed 10¢ in coin for handling and mailing.

*Name*_____

*Street*_____

*City & State*_____

Deepfreeze®
HOME APPLIANCES
Makers of genuine Deepfreeze Home Freezers, Refrigerators, Room Air Conditioners Electric Ranges and Water Heaters. Also sold by authorized dealers in Canada.

Look for it! Insist on it! Deepfreeze—the trade-name of freezer fame!

© 1954

Deepfreeze® THE ADVERTISING LEADER!

Reaching more than 35,000,000 readers this is the powerful type of Deepfreeze ad that will secure live sales leads for you! Appearing in **Better Homes and Gardens, American Home, McCall's, Good Housekeeping, Farm Journal, Country Gentleman, Capper's, Successful Farming** and **Progressive Farmer**—every magazine is the type that is read for information and education!

• • •

Advertising builds product preference and acceptance for you! Deepfreeze Appliances are preferred and accepted!

• • •

Deepfreeze is an advertising as well as a sales leader. We believe in the power of advertising and we know it helps you and every Deepfreeze dealer to make more sales quickly and economically!

• • •

You know, and we know, that buyers don't live or work in a mental vacuum. Day in, and day out, they are constantly making up their minds on *what* and *whose* product to buy!

• • •

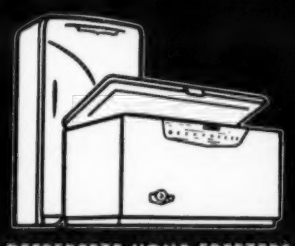
Advertising is the one best way to keep your products in prospective buyers' minds!

• • •

Shown to the left is the type of full page ad which will back your sales efforts during the summer when many other manufacturers curtail, or stop, their national advertising efforts.

• • •

Deepfreeze has the most complete line of local advertising helps to help you sell, including all types of display and sales promotion materials . . . . PLUS a national radio program on 530 stations of the Mutual network, the world's largest!



DEEPFREEZE HOME FREEZERS CHEST AND UPRIGHT MODELS

DEEPFREEZE REFRIGERATORS

DEEPFREEZE ROOM AIR CONDITIONERS

DEEPFREEZE ELECTRIC RANGES

DEEPFREEZE ELECTRIC WATER HEATERS

Deepfreeze®
HOME APPLIANCES

Deepfreeze Home Appliances, North Chicago, Illinois.
Makers of genuine Deepfreeze Home Freezers, Refrigerators, Room Air Conditioners, Electric Ranges and Water Heaters.

the trade-name that built an industry

MAIL THIS TODAY!

Deepfreeze Home Appliances Dept. AC—72654
North Chicago, Illinois

I want to be a sales leader and advertising leader with Deepfreeze Home Appliances. Rush me details about a Deepfreeze appliance dealership at once!

*Name*_____

*Street*_____

*City and State*_____

SPECIALTY SELLING METHODS

SPECIAL offers such as this wrench set attract prospects to Max's Service, after which they can be sold appliances. Here Max Crandall, the owner, explains features of offer to Mrs. Ann Hardy.

Dealer Builds Traffic with Advertising, Special Offers, and Budget Business

TRAVERSE CITY, Mich. — A "lot of advertising" in the local daily paper and on the radio plus "a dollar down—a dollar a week" gimmicks help build floor traffic for Max's Service here even though the store is located one block off the main street.

Having no outside salesmen, Max's Service depends on floor traffic and repeat business, explains Max Crandall, owner, who entered the business here in 1945.

Sales are handled by Crandall himself and two salesmen, all working inside. "I do a lot of 'budget business,' " he adds. "Once you get your customers coming in regularly to make payments, you get repeat business."

Chalking up a much heavier volume in sales than his present good rate would be no problem, Crandall claims, if he didn't care how long he wanted to stay in business.

"It's easy to get salesmen and sales, but you don't want to sell more appliances than you can service," he explains. "Otherwise, you will run into trouble sooner or later due to poor service, and it will backfire on future sales."

Five servicemen are employed to take care of refrigerator, freezer, washer, and other appliance service operations.

The firm handles General Electric and Kelvinator.

Most successful type of promotion employed by Crandall is "special offers" about once every month on such things as wrench sets, dishes, fishing tackle, etc.

Current one offers a complete wrench set for $28.75 with terms of $3 down and $1 a week.

"Our idea on this and similar offers," Crandall pointed out, "is to get the housewife into the store. Many wives will buy the wrench set, for example, as a birthday present for their husbands, being able to make the payments out of pocket money."

This means that the housewives will be coming in every week to make payments and thus become prospects for the alert salesman on the floor.

Crandall handles his own paper on everything under $50. When the balance runs over that figure, he discounts it at the local bank. On the latter accounts, the customer may make payments at either the bank or the store, although Crandall hopes that the customer comes into the store.

Another effective sales clincher used by Max's Service is a 10-day free trial offer on washers, ironers, and clothes dryers.

"I don't want people to buy something they don't like," he emphasizes. "When that happens, the word soon gets around the bridge clubs, etc., and this doesn't do our store's reputation any good."

Crandall usually hesitates about offering the free trial on refrigerators, ranges, and the like.

"People buying these things should have their minds pretty well made up beforehand. With washers and ironers, though, they often can't tell how they really like the appliance until they've tried it in their home," he says.

A big share of Crandall's sales is in the washer end of the business, which he describes as "steady 12 months of the year." He has found that "television comes and goes while refrigerators are fairly seasonal."

Deepfreeze 15th Anniversary Sales Kit Has Slide Films of Refrigerators, Freezers

N. CHICAGO, Ill.—New color slide films with sound dramatize for the dealer the product and sales stories of this year's 15th Anniversary lines of Deepfreeze home freezers and refrigerators.

The films, one for freezers and one for refrigerators, are featured in a new kit of sales training and selling aids which Deepfreeze Appliance Div., Motor Products Corp., has prepared for presentation at dealer sales meetings.

Also in the kit are illustrated booklets reviewing each film, pocket-size fact cards on freezers and refrigerators, single-page sales sheets with selling tips for the two product lines, and a 24-page booklet on appliance selling.

"Our new films and related materials are keyed to the recognition that successful appliance selling depends today more than ever on how well the retail salesman tells the customer what benefits and advantages the appliances will provide," says J. A. Rishel, Jr., who is Deepfreeze general sales manager.

"Our kit arms the salesman with both a well-rounded background of the products and quick reminders to carry in his pocket while on the floor."

The films, suitable for consumer as well as salesman audiences, will be presented in all 48 states and 10 provinces of Canada, Rishel declares.

The freezer film, "The Only One of Its Kind," looks in on a demonstration by a Deepfreeze home economist before a group of women. It depicts the advantages of "home freezer living," emphasizing the saving of time, work, and money. Features of Deepfreeze 1954 freezers are then described in detail.

A poker game on a hot night in June opens the refrigerator film, "Nothing Could Be Finer." The card players adjourn to the kitchen for cool drinks from the Aqua-Tap drink dispenser on the door of a new Deepfreeze refrigerator. This leads to a discussion of other features and a couple's visit to the dealer.

Pictures from the film, together with narration, are reproduced in the review books.

Dallas-Jones, Chicago, produced the films.

The fact cards, which slip into a shirt pocket, set forth product features in capsule form. The sales sheets give concise suggestions for directing and closing sales, while the selling booklet goes into more detail on the subject.

Flavored Ice-Circles Draw Crowds to Servel Booth At Home Show

CHATTANOOGA, Tenn. — An appliance exhibit with a fresh flavor—orange, grape, and strawberry to be exact—was a popular center of attraction at the recent home shows in Chattanooga and Knoxville.

The flavor center was a Servel "automatic ice-maker" refrigerator installed in the display erected by Modern Distributors, Inc.

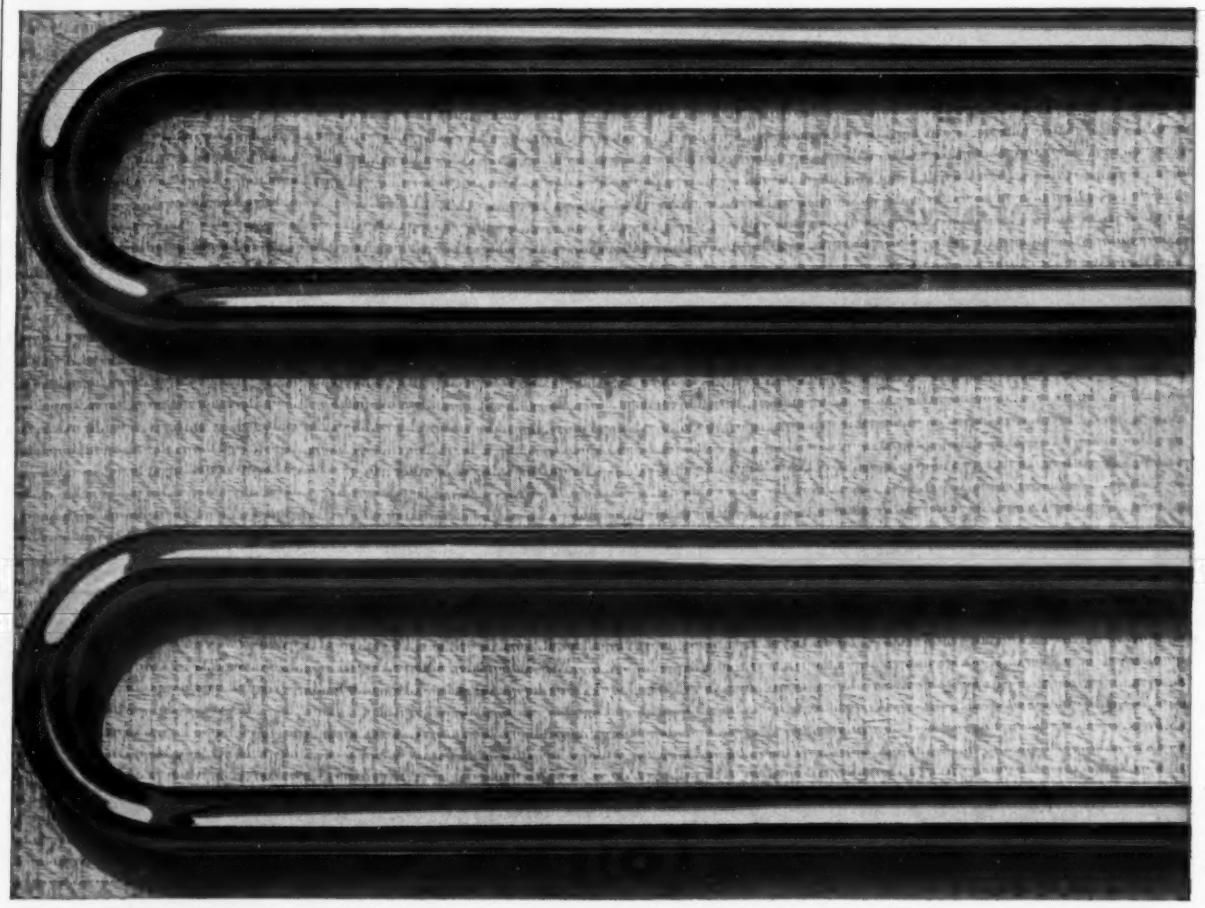
Harry Lee, manager of the Knoxville branch of Modern Distributors, Inc., and Charles F. Hallman, Servel appliance service representative, devised the method of introducing fruit-flavored syrups and water into the refrigerator's ice-making mold. A garden spray pressure tank was the only extra equipment necessary to turn out the flavored and colored ice-circles.

These ice novelties were then given as favors to home show visitors. According to Hallman, more than 6,000 ice-circles were given away, causing traffic jams in front of the Servel exhibit.

Anchors Aweigh!

BUFFALO — A business name has been filed in the Erie County clerk's office for the Anchor Refrigeration Service, 1024 Genesee St., Buffalo, by Howard Gorenflo, Ottomar L. and A. D. Reinecke, Jr.

get there fastest with the mostest!
SELL INTERNATIONAL AIR CONDITIONER COVERS
made of Firestone Velon
INTERNATIONAL
AIR CONDITIONER
Cover
PROTECTS YOUR AIR CONDITIONER IN OFF SEASONS
27 styles to fit every leading make from ½ to 1-ton 1951 to 1954 models. Retails from $6.45 to $8.45
There's an air conditioner in 2,000,000 windows. Experts predict another 1,500,000 are on the way this year. Get the air conditioner cover potential for yourself by selling the first, the finest made... INTERNATIONAL COVER... featuring superior construction, and heavier-gauge, genuine Firestone Velon. Write for the facts today.
INTERNATIONAL COVERS, INC.
39 GREAT JONES STREET NEW YORK 12, N. Y.



Portrait of the coil that stays sold!

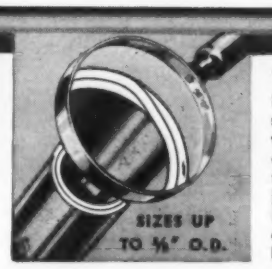
WHY BUNDYWELD IS BETTER TUBING

Bundyweld starts as a single strip of copper-coated steel. Then it's . . .

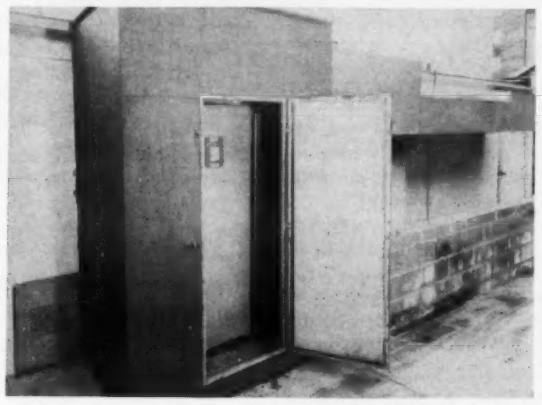
continuously rolled twice around laterally into a tube of uniform thickness, and

passed through a furnace. Copper coating fuses with steel. Result . . .

Bundyweld, double-walled and brazed through 360° of wall contact.



NOTE the exclusive Bundy-developed beveled edges, which afford a smoother joint, absence of bead and less chance for any leakage.



FIVE-TON air conditioner installed in insulated compartment in back of Broadway Tower Diner in Philadelphia.

Diner Installs Air Conditioner Outside, Ducts Air In To Conserve Valuable Space

PHILADELPHIA—Space is too valuable in a car-type diner for an air conditioner, so the Broad-Tower Diner near Temple University here had a 5-ton air conditioner installed out back and the cool air ducted in.

Erwin G. Alber, Inc. installed the General Electric packaged unit near the middle of the building on the outside in an insulated compartment. Supply air enters the restaurant via one duct at the center of the building with grills facing the two ends of the room. Return air is brought back to the unit in insulated ducts. The housing around the unit acts as the plenum.

This application has advantages over and costs less than installations where the return air ducts are connected to the air conditioner and insulation, baffling of return air openings, and weatherproofing of the air conditioner must be accomplished, Alber said.

Alber added that the installation has operated through the 1953 season and has proved quite satisfactory to the owner, Michael Tolia.

Ponca City Regulates Waste Water from Coolers

PONCA CITY, Okla.—An ordinance prohibiting the discharge of waste water from any cooling unit into streets, alleys, open storm sewers, or other public ways and not more than 10 g.p.m. into sanitary sewers or subterranean storm sewers has been adopted by the Ponca City board of commissioners.

The regulation already applies to all new installations and will be enforced on existing installations by next Jan. 1.

The law, which is similar to those passed by a number of other Oklahoma municipalities, is designed to prevent the overloading of sewers, provide protection during dry spells, and prevent owners of evaporative coolers from allowing those units to drip onto the sidewalk or alley. Evaporative coolers will have to be connected to a drain pipe.

Weathermakers at Witherill's

SYRACUSE, N. Y.—Fourteen Carrier Weathermaker air conditioning units have recently been installed throughout the five floors of Witherill's department store here. Each unit is controlled by individual thermostats, regulating the unit to conform to conditions in its department. Air Contracting Co. here made the installation.

New Ebco Plant To Get Large UsAirco Packaged Conditioning Installation

MINNEAPOLIS — One of the largest single packaged air conditioning installations in the world has been started in the Ebco Mfg. Co. plant under construction in Columbus, Ohio, it was announced recently by United States Air Conditioning Corp., which is providing the cooling equipment.

UsAirco is supplying 15 factory-assembled central plants totaling 647½ tons of cooling capacity for the new factory building, which is to be completed late in 1954.

The Ebco plant will be a windowless, fully air conditioned structure containing 220,000 sq. ft. of factory space and 20,000 sq. ft. of offices, all on a single floor.

Two UsAirco 50-ton "Refrigerated Kooler-aire" units will be placed in each of six penthouses.

Each RK unit contains in a single casing all of the elements of a central air conditioning plant, including evaporative condenser for water conservation, it was noted. For water heating, the blower sections of the equipment will operate through oil-fired heaters, using the same air distribution system.

A separate cooling and heating system, utilizing three UsAirco units with 47½ tons of capacity, will serve the offices.

Donald E. Delp, UsAirco Columbus representative, negotiated the sale.

Filtrex Corp. Formed To Make New Type Glass Fiber Filters

CORONA, N. Y.—Filtrex Corp., with offices and plant at 33-40 127th Pl. here, has been formed to manufacture a new, improved type of replaceable glass fiber filter for the rapidly expanding field of residential and commercial warm and cool air conditioning equipment, it was announced by Norman J. Davidson, president of the new organization.

N. J. Davidson

The new company has developed a special process which makes glass fiber soft and pliable, eliminating the danger of glass slivers, and preventing minute splinters of glass from breaking off the filter pack and circulating through the air stream, Davidson said.

The fibers are separated and arranged in graded densities to provide dust arrestance throughout the depth of the filter.

"Surface loading" is thereby eliminated, it is claimed, and the filter can maintain a maximum flow of air even when heavily loaded with dust particles.

A special laminating technique combines all portions of the filter into one integral unit for greater rigidity and strength. This permits re-use of the replaceable filter as there is no danger of breakage when vacuum cleaning or rapping out dirt.

Davidson was founder, president, and general manager of East Coast Aeronautics, Inc., Pelham, N. Y., manufacturer of aircraft and missiles until the company was sold to Barium Steel Corp.

Other executives of the corporation are Sidney Levine, secretary; John W. Clark, sales manager; and J. Edgar Mooney, production manager and plant superintendent.

Carrier Cools 2 Floors Of Atlanta's Cox-Carlton

ATLANTA—Air conditioning of the eighth and ninth floors of the Cox-Carlton hotel here, as well as the Chez Antoine French restaurant on the main floor, was recently completed by Carrier Atlanta Corp. here.

Half of the hotel's guest rooms are now air conditioned, it was reported.

Edwin Dobbins, who engineered and supervised the installation for Carrier Atlanta, pointed out that dampers were provided in each guest room.

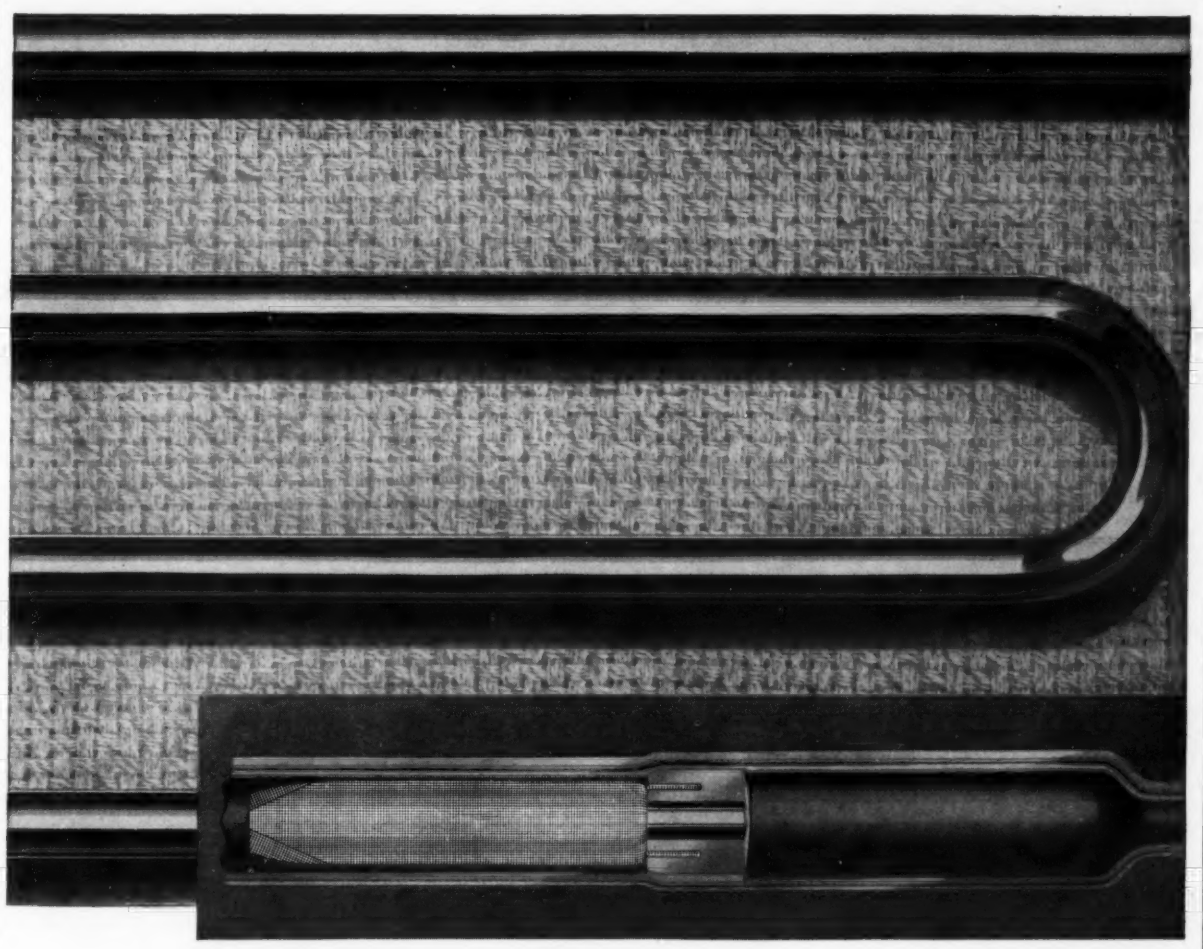
In addition, to overcome the east-west heat load problem, a zoning system was set up to provide a greater amount of cooling to east exposure rooms in the morning and to west exposure rooms in the afternoon.

Thermostats in special control rooms maintain an equal level of temperature throughout the air conditioned floors at all times of the day, Dobbins said. By utilizing this type of zoning, a unit of less capacity was used than would normally be required, he added.

Christopher Wren-Style Office Bldg. Gets Cooling

ST. LOUIS—A five-story office building based on designs by Sir Christopher Wren for the governor's palace at Williamsburg, Va., is being constructed in suburban Clayton by Builder Sidney M. Studt.

Completely air conditioned, the modern version of the governor's palace is located at the northeast corner of Brentwood Blvd. and Carondelet Ave. It consists of three adjoining units, with the central unit five stories high with three-story flanking wings.



Another Bundy-pioneered idea which saves *you* time and money

HERE at Bundy we don't rest on our laurels just because we produce condenser coils that will go on working faithfully through many years of efficient, leakproof service. We constantly *improve* on these condenser coils.

Take the strainer application above, for example. Instead of adding the customary separate tubular strainer between the end of the condenser coil and the capillary tube, Bundy built a small strainer *into* the condenser coil. The strainer, fitted to brass collar, is press-fit into the expanded end of the condenser coil. The strainer end of the coil is then swaged at the tip joining the capillary tube. A joint is eliminated, saving time and cost of making additional expanded part and assembling it onto coil.

Bundyweld's ability to expand readily and without leakage makes this particular application possible. For example, Bundyweld expands from ¼" O.D. to ¼" I.D. The O.D. of the filter screen section is .170 O.D., which slips inside the expanded section and guarantees a full 1/32" clearance all the way around the screen as it fits into the tube.

Solving problems like this one is a habit with us at Bundy. We offer unexcelled fabrication facilities, specialized engineering skills, and a conscientious devotion to our customers' problems. Perhaps we can help you, too. Why not call VA 3-1300 in Detroit for information on your applications.

BUNDY TUBING COMPANY
DETROIT 14, MICHIGAN

BUNDYWELD TUBING®
DOUBLE-WALLED FROM A SINGLE STRIP

Bundy Tubing Distributors and Representatives: *Bridgeport, Conn.:* Korhumel Steel & Aluminum Co., 117 E. Washington St. • *Cambridge 42, Mass.:* Austin-Hastings Co., Inc., 226 Binney St. • *Chattanooga 2, Tenn.:* Peirson-Deakins Co., 823-824 Chattanooga Bank Bldg. • *Chicago 32, Ill.:* Lapham-Hickey Co., 3333 W. 47th Place • *Elizabeth, New Jersey:* A. B. Murray Co., Inc., Post Office Box 476 • *Los Angeles 58, Calif.:* Tubesales, 5400 Alcoa Ave. • *Philadelphia 3, Penn.:* Rutan & Co., 1717 Sansom St. • *San Francisco 10, Calif.:* Pacific Metals Co., Ltd., 3100 19th St. • *Seattle 4, Wash.:* Eagle Metals Co., 4755 First Ave., South • *Toronto 5, Ontario, Canada:* Alloy Metal Sales., Ltd., 181 Fleet St., East.
Bundyweld nickel and Monel tubing are sold by distributors of nickel and nickel alloys in principal cities.

SINCE 1924...
SHAFTS *by* MODERN

Shafts by Modern power compressors for the country's leading lines of commercial refrigeration. For precision SHAFTS, in quantity, consult...

Modern Machine Works, Inc.
Pioneer Shaft Manufacturers
5354 S. KIRKWOOD AVENUE
CUDAHY, WISCONSIN

Offenders Face Court

'Illegal' Installation of Room Coolers Is Serious Fire Hazard, City Official Claims

MEMPHIS, Tenn.—"Serious fires are threatened because many Memphis citizens are installing air conditioners illegally," City Electrical Inspector Harry L. Thomas testified in City Court here July 14.

"Already we have had several fires and some electrical transformers have burned up because of the situation," Thomas told Acting Judge Eulyse Smith. "We have decided to start bringing people to court who have air conditioners installed by an unlicensed electrician."

Inspector Thomas testified in the case of Van B. Martin, of 363-I Driver, who was charged with violating the City Code by installing a conditioner on Overton Park.

"Martin had no license and did not obtain a permit nor have the job inspected," Thomas asserted. Leon Alexander, a grocer, said he hired Martin to install the air conditioner at the home of his mother, Mrs. Sam Alexander. Judge Smith fined Martin $26.

Inspector Thomas commented: "My department has received many complaints of illegal installations of air conditioners and householders have been warned they will be taken to court."

Cools Raleigh 'Super'

RALEIGH, N. C.—Smith-Barnes Co. here had the contract for installation of Chrysler Airtemp air conditioning equipment in the new Piggly Wiggly Super Market in Longview Gardens.

Buffalo Forge To Sell 85,000 Shares of Stock

BUFFALO—A total of 85,000 shares of common stock in Buffalo Forge Co. will be put up for sale, it was disclosed coincident with a registration statement filed with the Securities & Exchange Commission.

The 85,000 shares, now held by 11 stockholders, will be offered for public sale through an underwriting group headed by Hornblower & Weeks. The initial public offering is to be at a fixed price, determined by agreement between the selling stockholders and the underwriters and related to the current market price of $27⅛ for the stock. The stock has a par value of $1 a share.

The prospectus says that 11 stockholders, all of Buffalo, own 175,437 of the 749,572 outstanding shares.

Kennard Names Two New Representatives In Ohio

ST. LOUIS—Kennard Corp. here has recently announced the appointment of new sales representatives in central and southwestern Ohio.

The F. W. Jenike Co. will represent Kennard in the Cincinnati trading area, which was previously handled by Kennard's Dayton office. Frank Jenike, Roger Anderson, and Walter Stevenson operate the company.

Frey Equipment Co. will represent Kennard in the Dayton and Columbus trading areas. R. A. Frey was formerly with Gary G. Schulz and Associates.

INSIDE DOPE

Learn to live and laugh—
Thus delay your epitaph

By GEORGE F. TAUBENECK

(Concluded from Page 1, Col. 1)

Gracious Living: When the host at the backyard barbecue grill brushes off the steak after it has fallen into the sandpile.

"Growth comprises expansion, and then decay. Magnetism never dies—it is life."—VIRGIL GEDDES.

Here, in nine words, this respected philosopher puts his finger on the secret of continuous development—in business, in the individual, or in an institution.

The BIG QUESTION put by this philosopher is:

"Does your organization have men with sufficient magnetism to attract capable employes, good suppliers, dependable customers?"

Without magnetism a business may "catch on," and even expand rapidly for a time, but the seeds of decay are in it—without a magnetic man or two. Business, like life, depends on the magnetism of personality. — *Management Briefs.*

Summertide Gossip

We hear *via* the grapevine that Polly ("Don't Call Me Madam") Adler is being urged to publish a new magazine entitled: *Bad Housekeeping.*

And a *Detroit News* commentator reports:

"The 21-in. TV snob is being replaced by the one-ton room cooler snob."

Long Live Cordia Rostock

Ordinarily "Dope" discourages contributing poets. They're a-dime-a-dozen, generally insipid and, furthermore, too persistent.

EXCEPTION: the following verses from Cordia Rostock, a businesswoman who is one of the best promoters and purveyors of commercial refrigeration equipment in these United States.

Read them and judge for yourself. Should Cordia stick to selling display cases? Does her poetic talent deserve a bigger showcase? (Tune in this station tomorrow for another chapter in the serial, *"Cordia Faces Life,* the story of a born saleswoman who gets rich even though all she really wants to do is write poetry"). Herewith her contributions:

LINES TO THE ROOM AIR CONDITIONER IN MY BEDROOM WINDOW
(A Real Crazy Cool Machine)

Your rear protrudes from my window sill.
Some say it looks unsightly.
But I say "Pooh"
Since thanks to You,
I get a good sleep nightly.

It's one hundred plus outside today,
But I'm without a care.
(I hope I don't freeze)
I feel like a Polar Bear.

Sometimes You are termed a luxury,
Although, of course, You are not.
Why hug the heat
Through snow and sleet
Then do without when its hot.

Oh, Hooray for my t.d. of twenty or so
In this room I shall stay till we have our first snow,
While You exhale the air so cool, dry, and clean.
I salute You, my friend, You're a noble machine.

MINE HAS ALL THE POSSIBILITIES OF BECOMING A COMPLETE STRANGER

Electrical, Mechanical,
Industrial, or Chemical,
Engineers as husbands are the least.

Their habits are identical.

To a wife they cannot utter
One phrase that is endearing,
Since their voices only mutter
Some phase of Engineering.

They discuss it with their cronies,
Dear friends they've known for years,

And all these characters, of course,
Are other Engineers.

Their blueprints clutter up the house.

Why argue? You can't win it.
The house becomes an office with
A bed and kitchen in it.

They only read trade magazines.
Each copy must be saved and stored.

The most exciting thing they ever saw
Was on a drawing board.

All their pockets bulge with data.
Pencils ride behind their ears,
Plus old slide rules and drafting tools.

Away with the Engineers!

Vacation Verse

Perhaps Cordia Rostock's cutely germane verses have downed our inhibitions against too much poesy. Anyway we conclude with:

Be it millionaire's mansion or tumbledown shack,
While you've gypsied awhile, ain't it great to be back?
There's a feeling that gets you, you just can't deride,
When you turn the old door knob, and set foot inside.
Though the words may sound corny, wherever you roam,
When you reach your own hearthside, It's good to be home!

—BEULAH GOODWIN

Out of Our Mailbag

Pappas Refrigeration & Supply Corp.
San Antonio, Texas

Editor:

I always enjoy your stories of the week but your first one in the July 5 issue ain't the way I heard it.

Simultaneously three men arrived at the Pearly Gates.

"What were you in earthly life?" St. Peter probed the first arrival.

"A Methodist minister."

"Wait your turn in line over there. And what, may I ask, were you?"

"I was a Baptist preacher."

"Please take your place over there with him and wait. Next!"

"I was a taxi driver in New York City."

"Walk right in."

"Hey, wait a minute," the preachers spoke up. "How come he gets to go right on in and we have to wait?"

"Simply because," replied St. Peter, "that during his life-time he scared the Hell out of more people than you did."

Keep 'em coming.

CHARLES A. ROGERS,
Vice President & Sales Manager

IMPERIAL TORPEDO® DRIERS

Set a New High in Drying Efficiency

COPPER AND BRASS CONSTRUCTION. One piece streamlined copper shell gives greater strength, fewer joints . . . assures against leakage.

FILTERING AREA INCREASES WITH DRIER CAPACITY. Larger monel metal screens provided in larger driers assuring ample filtering capacity in all sizes.

CHARGED WITH PA 400 SILICA GEL. Has up to 98% more moisture adsorption capacity with Freon 12 than former type used. Dust free.

SIZE INTERCHANGEABILITY — 30, 50 and 75 cu. in. sizes of refillable driers have flare unions. To change size, use reducing union.

Today, more than ever before, the IMPERIAL *Torpedo* is the leader in drying efficiency . . . contains 100% PA 400 Silica Gel which has up to 98% greater moisture adsorption capacity. Provides greater filtering area . . . dependable one-piece shell construction. Economical in cost. No wonder the Imperial *Torpedo* is always *FIRST CHOICE* with so many!

REFILLABLE DRIERS
Furnished with Forged Flare Nuts and Copper Seal Caps

Cat. No.	H.P. Rating	Cubic Inches	Size of Flare Connections	List Price Each
806-C	¼ to ½	6	1/4"	$ 4.25
809-C	½ to ¾	9	1/4"	4.90
812-C	¾ to 1	12	1/4"	5.50
			3/8"	5.80
818-C	1 to 1½	18	1/4"	6.40
			3/8"	7.00
830-C*	1½ to 3	30	1/4"	9.15
			3/8"	9.45
			1/2"	9.75
850-C*	3 to 5	50	3/8"	12.20
			1/2"	12.80
			5/8"	13.10
875-C*	5 to 7½	75	3/8"	17.05
			1/2"	17.65
			5/8"	18.90

*Have flared unions—giving size interchangeability.

NON-REFILLABLE DRIERS
Furnished with Forged Flare Nuts and Copper Seal Caps

Cat. No.	H.P. Rating	Cubic Inches	Size of Flare Connections	List Price Each
903-C	⅛ to ¼	3	1/4"	$2.80
906-C	¼ to ½	6	1/4"	3.45
909-C	½ to ¾	9	1/4"	4.10

SEE YOUR JOBBER

THE IMPERIAL BRASS MFG. CO., 534 So. Racine Ave., Chicago 7, Ill.
In Canada: 334 Lauder Ave., Toronto, Ontario

Ask for Catalog No. 81

IMPERIAL

FITTINGS • VALVES • DRIERS • FILTERS
FLOATS • CHARGING LINES • TOOLS for Cutting, Flaring, Bending, Pinch-off, Swedging

KRAMER

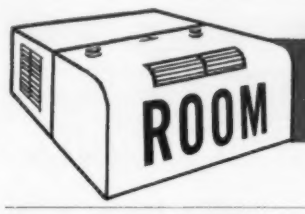
LARGE Curvette

with the HINGED PAN for easy access

- Built-In Heat Exchanger
- NO RUSTING — polished aluminum casing

WRITE NOW FOR BULLETIN C-192

KRAMER TRENTON CO. • Trenton 5, N.J.



AIR CONDITIONERS

Tenn. County Offices Get 75 Air Conditioners

MEMPHIS — Installation of air conditioning units in county offices in the Courthouse was scheduled to be completed by July 15.

According to Gene Bursi, Courthouse custodian, the county paid $18,975 for the 75 one-ton Remington units, and $5,989 for the wiring of the offices.

"With completion of the installation all principal county offices will be air conditioned," Bursi stated.

"The units were installed in the register's office, real estate, Court of General Sessions courtroom and judges offices, Circuit Court and Chancery Court clerks offices, trustees offices, County Courtroom, Probate Judge's office, Board of Education, sheriff's civil department."

Associated Southern Industries sold the air conditioners, and the wiring was done by McBride Electric Co.

Van Dam Rejoins Cory as Special Chicagoland Agent

CHICAGO—John A. Van Dam has rejoined Cory Corp. as the special Chicagoland sales representative, according to J. W. Alsdorf, president.

J. A. Van Dam

From December, 1947 through August, 1952 he was the Chicago territory manager for Fresh-'nd-Aire Co., a division of Cory. In that capacity, he handled northern Illinois sales of Fresh'nd-Aire fans, circulators, and air treatment appliances prior to the time those products were integrated into the complete Cory sales program.

From August, 1952 through June of this year, Van Dam was the Chicago district territory manager for General Mills in its appliance division.

In addition, he spent more than a year as an appliance salesman with RCA Victor Distributing Corp.

Plastic Extender Takes Air Conditioning to Any Room In House

NEW YORK CITY—Being offered by Milprint, Inc. here is an air conditioner extender which "makes it possible to air condition any room in a home with one air conditioner—without removing the unit from its original location."

Called the "Spot-Kool," the device consists of an adapter, two 20-ft. sections of lightweight, flexible plastic tubing, and a direction stand. It is made of polyethylene. The adapted is a section of plastic which is attached with suction cups over the air conditioner grille. Extra 20-ft. lengths of tubing are available.

The attachment is said to fit any air conditioner. It is priced at $14.95.

Milprint pointed out that the Spot-Kool enables an air conditioner owner to extend cool air anywhere needed in the home—bedroom, living room, dining room, kitchen, or bathroom.

"If your power wiring requirements prevent use of another air conditioner," prospects are told, "use Spot-Kool until you can rewire your home for an extra air conditioner."

Gross Electric of Toledo To Distribute Fedders

BUFFALO—Appointment of Gross Electric Co., Wholesale Div., Toledo, as distributor of Fedders room air conditioners and dehumidifiers has been announced by Robert E. Cassatt, national sales manager, Fedders-Quigan Corp.

George J. Gross is president and treasurer and Armand Gross is vice president and sales manager of Gross Electric. Louis E. Little will be in charge of sales for the Fedders line. Territory covered by Gross Electric includes northwestern Ohio and southern Michigan.

Deepfreeze Catalogs All Sales Promotion Material Available to Its Dealers

NORTH CHICAGO, Ill.—A new illustrated catalog containing all current sales promotion materials available to Deepfreeze appliance dealers is being offered to distributors by Deepfreeze Appliance Div., Motor Products Corp.

Among the materials described are billboard posters, store signs, sales training books and records, advertising mats, moving store displays, consumer booklets, presentation books and leaflets, frozen food plan details, movie trailers, radio and television spots, customer "bonds," and gift items.

There are separate sections for home freezers, refrigerators, room air conditioners, electric ranges and water heaters, and Deepfreeze appliances in general.

All-Weather Expands Line Of Air Conditioner Covers

NEW YORK CITY—All-Weather Supply Co., Inc. here announces that it has enlarged its line of "custom fit" air conditioner covers to fit all 1954 brands.

New catalog sheets and literature are available upon request from the company, 1186 Broadway, New York 1, N. Y.

UsAirco Closes Aug. 1-15

MINNEAPOLIS — The United States Air Conditioning Corp. will close its plant from Aug. 1 to Aug. 15 for the annual two-week vacation period, it is announced by D. E. Feinberg, vice president and general manager.

A small office staff will be maintained during this period and certain stock shipments of packaged refrigeration and room air conditioning equipment will be available, according to Feinberg.

'Ospho' Bonds Rusted Metal to New Paint

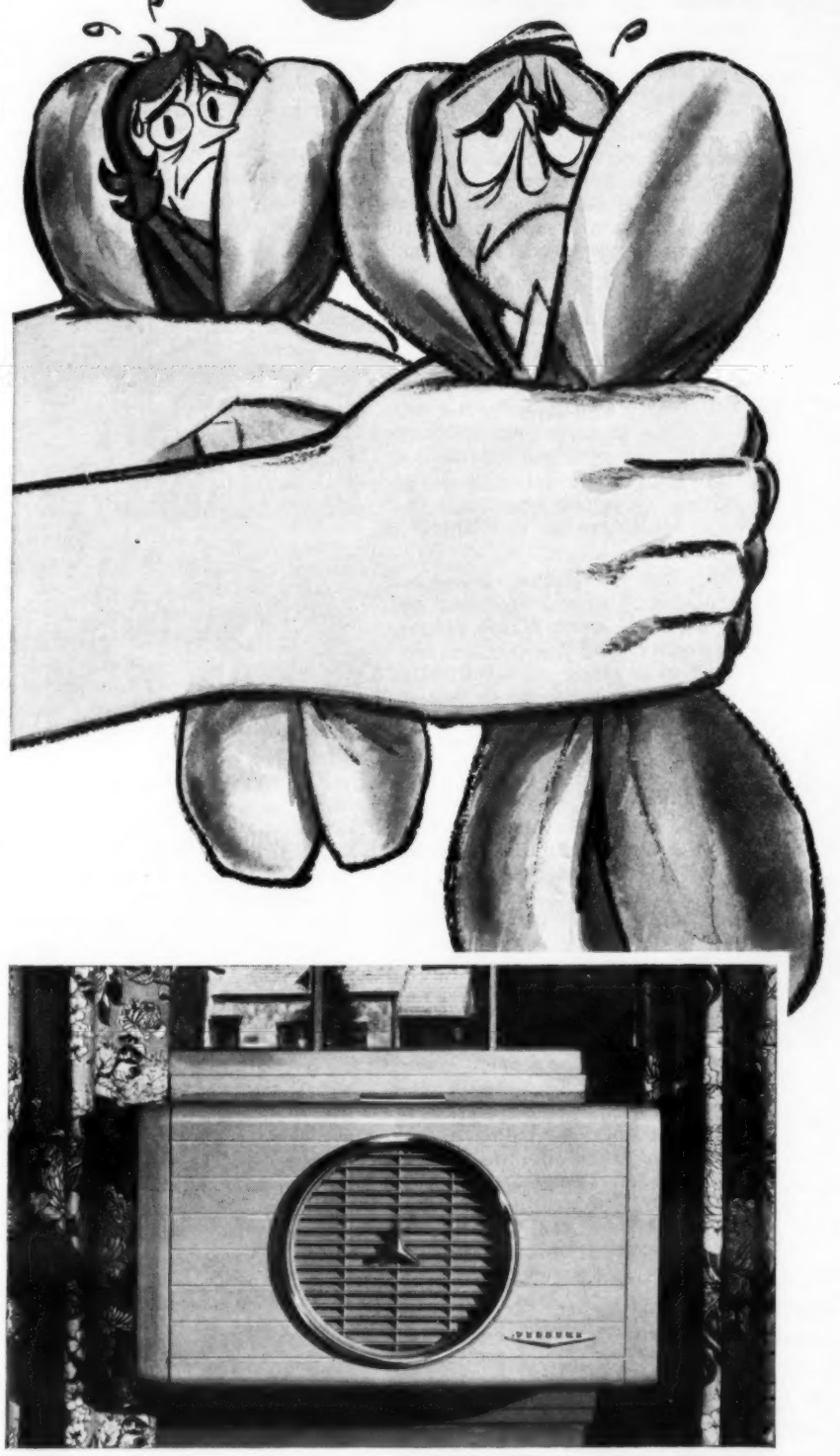
CLEVELAND—A rust inhibiting metal primer that could be used in annual maintenance of air conditioning units to coat rusted spots before painting is offered by Rusticide Products Co.

Called "Ospho," the liquid primer is brushed or sprayed right over the rust and forms a bond between the rusted metal and new paint, the manufacturer claims. Rust action is stopped.

T. T. Holt, president of the company, explained that when Ospho is applied, a chemical change takes place. The iron oxide (rust) has turned to iron phosphate, an inert, hard, dark grey substance.

Ospho is supplied in gallon bottles at $3 per gal., 10-gal. kegs at $2.80 per gal., and 50-gal. barrels at $2.60 per gal., f.o.b. Cleveland. A free trial supply is available.

Get 'em while they're HOT!



THEY'RE hot right now, Mr. Dealer . . . sweltering, sizzling and sleepless . . . and they'll get even more so in August! What's the one room air conditioner that turns these hot prospects into cool cash fastest and easiest? Fedders. Here's why:

FULL PROFITS

No distress merchandise here. You get full price and full profit because Fedders delivers full power and dependability. Tremendous cooling power . . . dehumidifying power . . . and air filtering power.

TESTS PROVE FEDDERS MOST POWERFUL

If you're a Fedders dealer, you've received a copy of independent tests made by a famous research organization. What a powerful sales clincher that is! If you're not a Fedders dealer, and you want to see a real eye-opener, contact your nearest Fedders Distributor today, or write Fedders-Quigan, Dept. AC-6, Buffalo 7, New York, and we'll gladly send you his name and address.

P. S. That old master salesman, Dave Garroway is demonstrating Fedders to 3,500,000 NBC-TV "Today" watchers every single morning in July and into August . . . with local TV listings right after each demonstration!

. . . with the PROFIT-FULL, POWER-FULL FEDDERS

Text of FHA Bulletin ME-12

Federal Housing Administration Underwriters Division Revises Its Requirements on Summer Air Conditioning

Underwriting Div.
Federal Housing Administration
Washington 25, D. C.

Summer Air Conditioning Requirements

Mechanical Engineering Bulletin No. ME-12

Supersedes Bulletin No. ME-10 Dated July 9, 1953

Important Notice

The technical description, requirements, and limitations expressed herein do not constitute an endorsement or approval by the Federal Housing Administration of the subject matter, and any statement or representation, however made, indicating approval or endorsement by the Federal Housing Administration, is unauthorized and false, and will be considered a violation of the United States Criminal Code, Sec. 709, Title 18, U.S.C.

Subject to good workmanship of installation and the conditions of acceptance listed herein, the equipment described in this bulletin may be considered acceptable in the construction of properties otherwise eligible for mortgage insurance under the Minimum Property Requirements of this Administration.

This acceptance applies only to installations herein described and is not to be construed as indicating acceptance of the property as a whole. Many other factors must be considered under FHA mortgage insurance underwriting procedures. In order to qualify as security for an insured mortgage, each property will be individually judged on its own merits.

This bulletin shall remain in force until it is superseded by a revised or new bulletin, or withdrawn. The Underwriting Division, Washington Headquarters, may undertake review of such bulletins whenever conditions warrant. A revised or new bulletin may be issued on the basis of such reviews, depending upon satisfactory experience with installations in actual use and upon acceptance of any proposed changes.

The Minimum Requirements contained herein are hereby a part of the Minimum Construction Requirements of all FHA insuring offices.

1. **Objective.** The objective of requirements relating to summer air conditioning is to provide comfort in warm seasons by means of facilities which are safe, quiet, economical in operation and maintenance, and which will provide temperature and relative humidity conditions within the Summer Comfort Zone as defined and illustrated in the ASHVE Guide, (latest edition) in the specified living spaces when the outside dry and wet-bulb temperatures are at design condition.

2. **Acceptable Installation.** Equipment and appurtenances shall be designed for, and installed as, a permanent part of the structure and shall include, in general, a distribution system serving, as a minimum, the living room and any adjacent spaces not separated by doors, and at least one bedroom. The system shall be so arranged that sufficient cooling capacity can be directed to the bedroom to produce specified conditions in that space.

Unit conditioners designed for installation in walls are considered acceptable; however, units mounted in windows or free standing units not having an extension or duct through an exterior wall, are not regarded as a permanent part of the structure.

Note: This bulletin is not intended to cover evaporative cooling systems. Such systems may be accepted by local insuring offices where suitable conditions prevail.

3. **Capacity of Equipment.** Capacity of equipment, as a minimum, shall be sufficient to produce the specified inside design conditions within the living room and any adjacent spaces not separated by doors, when the outside dry and wet-bulb temperatures are at design level.

4. **Data To Be Submitted.**

A. Building construction details pertinent to heat gain calculations and complete plans and specifications of the proposed system.

B. Heat gain calculations including estimated heat gain and B.t.u. extraction for each space to be conditioned.

C. Cost of installed system and estimates of annual operating and maintenance costs. Where summer air conditioning systems are combined with winter air conditioning or heating systems, the above costs should reflect only the additional amounts for the summer air conditioning system.

5. **Heat Gain Calculations.**

A. Calculations shall be made in accordance with the American Society of Heating & Ventilating Engineers Guide, Air Conditioning and Refrigeration Institute Standards, the applicable manuals of the National Warm Air Heating and Air Conditioning Association or other recognized and acceptable methods.

B. Outside and inside design conditions shall be specified. Outside conditions shall prescribe the dry-bulb and wet-bulb temperatures as listed in the ASHVE Guide under "Design Dry-Bulb and Wet-Bulb Temperatures in Common Use" for the City Station. For localities not listed in the Guide the outside design temperatures shall be those established by FHA. Inside conditions shall prescribe the dry-bulb temperature and the relative humidity. Inside design conditions in excess of 80° F. dry bulb and 50% relative humidity are not recommended for most geographical areas.

6. **Refrigeration System.**

A. Refrigeration systems and components shall comply with the requirements of the Safety Code for Mechanical Refrigeration, American Standards Association B9.1 (latest edition), and shall be rated and tested in accordance with the current applicable standard of the American Society of Refrigerating Engineers. Refrigerants used shall be non-toxic and incombustible and shall be approved as a Group 1 refrigerant as classed in ASA B9.1 Code, except that sealed absorption systems may use Group 2 refrigerants when in compliance with this Code.

B. Piping used for conveying condenser cooling water shall be galvanized, copper, or other corrosion-resistant material acceptable to the Chief Underwriter. Where condenser cooling water causes excessive corrosion, scaling, or obstruction within the piping or equipment, suitable water-treatment means may be required.

C. Cooling coils, except in units specifically approved and listed by U.L. or A.G.A. for location of coil upstream from furnace heat transfer surface, shall be located so that conditioned air leaving the coil will not pass over the heat transfer surface of any furnace. The cooling coil may be located downstream from the furnace, or the furnace may be completely bypassed during the cooling cycle.

D. All exposed refrigeration piping located less than 6 ft. above any floor or outside grade shall be suitably protected to prevent damage to piping or injury to persons.

E. Clearances shall be provided from all construction to permit proper operation, adjustment, and repair of equipment.

F. Suitable means shall be provided for the disposal of condensate from the equipment. The condensate drain shall be at least ¾-in. nominal pipe size and shall be copper, galvanized steel, or other corrosion-resistant material.

Where the cooling coil or air conditioning unit is located above a living space, or where structural damage may result from condensate overflow, an additional watertight pan of corrosion-resistant metal shall be installed beneath the cooling coil or unit to catch overflow condensate due to a clogged condensate drain. The additional pan shall be provided with a drain pipe, minimum ½-in. nominal pipe size, discharging at a point which can be readily observed. Condensate drains shall not be directly connected to a plumbing drainage system.

7. **Distribution Systems.**

A. Duct systems shall be designed and installed in accordance with a recognized and acceptable method such as contained in the ASHVE Guide or applicable manuals of the NWAHACA except as otherwise provided herein.

B. Return air from any living unit shall not be recirculated and delivered to any other living unit.

C. Balancing devices for volume adjustment shall be provided in each supply duct or supply outlet. In combined systems where the same ducts are used for heating and cooling, (1) supply outlets shall be provided with suitable directional vanes, and where necessary to achieve proper distribution, vanes shall be adjustable, and (2) supply outlets in bedrooms shall be provided with a shut-off damper.

D. Grilles for return air shall be sized so that the velocity of air through free areas will not exceed 500 f.p.m. Return air inlets shall be of sufficient number and so located that return air from one room will not pass across normally occupied floor areas of another room in such manner as to cause objectionable draft.

E. Supply ducts and supply piping in crawl spaces, unfinished attics, and other non-conditioned spaces, shall be suitably insulated. Where necessary, ducts, piping, and other parts of the distribution system shall be insulated and covered with a sealed joint vapor barrier to prevent condensation. An acceptable ground cover shall be provided in crawl spaces of any structure in which air conditioning is installed.

F. Distribution systems employing liquid media for cooling shall be designed in accordance with the applicable criteria contained in the ASHVE Guide and shall be capable of producing summer comfort conditions within the concept of this bulletin.

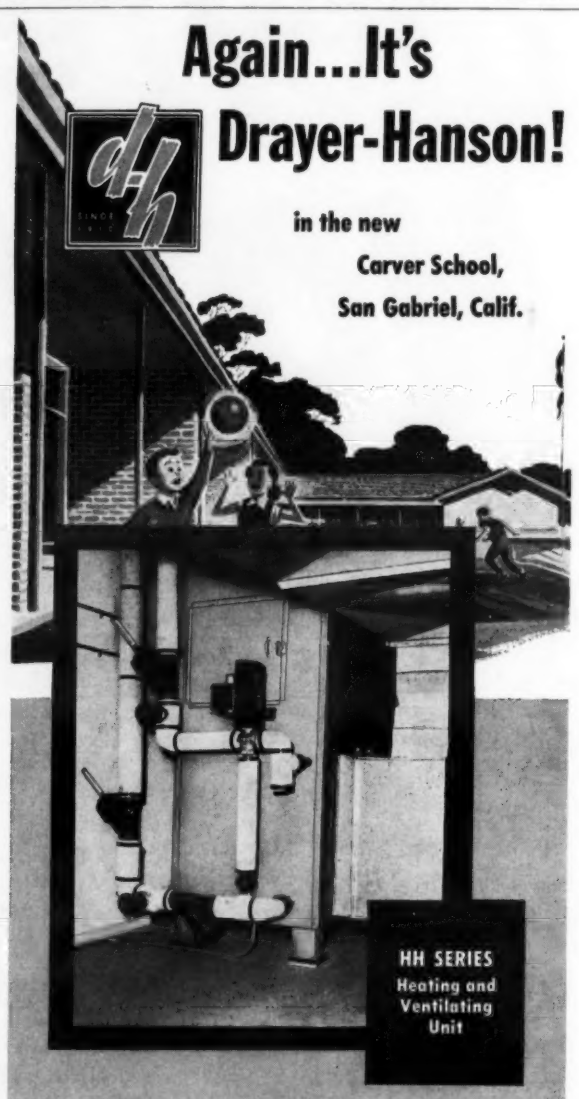
8. **Noise Abatement.** Suitable and durable means shall be provided to prevent transmission of objectionable noise or vibration generated by the equipment. As a partial index and guide, the sound level due to the operation of the equipment, as measured on the 40 decibel weighted network in the center of conditioned spaces and 3 ft. above the floor, should generally be no higher than 45 decibels for a normally furnished room or 50 decibels for an unfurnished room.

9. **Electrical.** Manufacturers wiring diagram shall be furnished for packaged units. Where field build-up or assembled units are

(Concluded on next page)

Again...It's Drayer-Hanson!

in the new Carver School, San Gabriel, Calif.



In important installations everywhere ... units like this are giving the dependable, long-lived service which keynotes Drayer-Hanson products.

When your prospects say, "year-'round air conditioners," *compare*, feature by feature. You're bound to specify D-H!

With HH's, you can choose your arrangement: horizontal (HH), or vertical (HHV) units. 13 sizes, to 28,000 CFM. Coils for water, steam, direct expansion—or a combination.

You can't mistake them! *The extra features* you find in HH's are solving tough air conditioning problems, the country over.

Investigate! *Full details, request Bulletin C-4.20.*

drayer-hanson
INCORPORATED
3301 MEDFORD STREET, LOS ANGELES 63, CALIFORNIA

3 R's OF THE INDUSTRY
Ranco Replacement Reference No. 1544 lists almost 5,000 replacement controls . . . the most complete line in the industry. This big, new manual can be purchased from your Ranco wholesaler. Get yours now.

RANCO DUAL PRESSURE CONTROL

. . . safety-guarantee for your air conditioning service

Your customers will appreciate the protection of this Dual Pressure Control . . . and here's why:

High pressure cut-out with non-adjustable high pressure limit stop safeguards the system—prevents service adjustment above the maximum safe operating pressure. Low pressure safety cut-out prevents pulling air into the system with excessive low pressure operation.

In either event, the system shuts down until restarted with the manual reset. Both high and low pressure ranges are independently adjustable.

Add up those features and you'll understand why Underwriters Laboratories requires this type of control on all hermetically sealed air conditioning systems . . . why both you and your customers will consider it well worth the few minutes it takes to install. Make your next job a Ranco Dual Pressure Control installation . . . now available in Types 012-1593, 012-1594 and 012-1595 . . . a safety-guarantee for your air conditioning customers.

Ranco Inc.
COLUMBUS 1, OHIO
WORLD'S LARGEST MANUFACTURER OF REFRIGERATION CONTROLS

FHA Bulletin ME-12--

(Concluded from preceding page)

installed, a complete wiring diagram shall be submitted. Compressor motors shall be installed on 208, 220, or 230-volt circuits unless specifically exempted by the Chief Underwriter. All electrical wiring shall be in compliance with the requirements of the National Electrical Code. All motors shall be protected in accordance with recommendations contained in Underwriters' Laboratories, Inc. Standard for Air Conditioning Equipment, Subject 207 (a), latest revision.

10. **Instructions.** Operating and maintenance instructions shall be provided for each installation and shall be attached to applicable equipment or adjacent thereto at time of final inspection.

11. **Performance.** A performance guarantee, including evidence of adequate service facilities, acceptable to the Chief Underwriter and executed by the contractor installing the equipment, shall be a part of the contract specifications.

12. **Warranty.** Standard manufacturers warranty shall be required for all equipment. Warranty replacement parts shall be furnished and installed by the contractor without additional charge during first year after date of installation. Equipment carrying a manufacturer's warranty in excess of one year shall be plainly denoted in the submission.

J. S. BAUGHMAN,
Acting Deputy Commissioner

Set Date for Building Bids On State's Air Cooled Bldg.

RICHMOND, Va.—According to State Senator Thomas H. Blanton, chairman of the State Office Building Commission, the target date for seeking construction bids on the state's long-awaited new office building now is Sept. 1. It will be air conditioned throughout.

Preparation of the many detailed plans and specifications for the elaborate, 15-story, $3,900,000 structure apparently has been holding up the start of the work.

The new building will have 13 floors above ground, two basements, and a penthouse (for equipment).

Files Bankruptcy Petition

WEST PALM BEACH, Fla.—Air Conditioning Distributors, Inc., 1004 Okeechobee Rd. here, has filed a voluntary petition in bankruptcy in Federal Court at Miami, listing liabilities of $64,789 and assets of $10,546.

Building In Brazil To Have Pressure Conduit Air Conditioning System

SAO PAULO, Brazil — First building in Brazil to have a high pressure conduit system of air conditioning will be the 14-story National City Bank building now under construction here.

The entire building, being erected at the corner of Avenidas Sao Joae and Ipiranga, will be completely air conditioned for year-round comfort by "Cebec"—Ceibrasil, Belinky, Eng. e Com. Ltda., distributor for Worthington air conditioning in Brazil.

Some of the equipment will be Brazilian made. The marble and most of the other building materials will be Brazilian.

Ducts, through which air will pass at 6,000 f.p.m., are being tailor-made by "Cebec" right on the job. The result is a network of vari-sized welded sheet metal pipes that will run along the sides of each floor between an outer and an inner wall. They are constructed so that adjustments can be made for control dampers—the key to providing individual controls on each floor.

Equipment to "condition" the air includes three Worthington six-cylinder, 6⅜-in. by 5-in. "Freon-12" reciprocating compressors, each powered through V-belts by 150-hp. squirrel cage induction motors. Worthington shell and tube condensers are used—one for each compressor—each 20 in. in diameter and 148½ in. long.

Chilled water is cooled in three 30-in. by 16-in. shell and tube coolers and circulated — through Worthington centrifugal pumps manufactured by Worthington Maquinas, S.A. of Rio de Janeiro—to individual air cooling coils throughout the building.

Water for the condensers is continuously reused since it is cooled as it comes from the condensers by passing through a cooling tower located on the roof.

The new building, the largest branch of the internationally known New York City bank in all Latin America, incorporates several new features in addition to the high pressure air conditioning. These include drive-in banking facilities on the ground floor and tenant parking facilities in the basement.

Alabama County To Build Air Conditioned Courthouse

BAY MINETTE, Ala. — The Baldwin County Commission has completed plans for the construction of a new air conditioned four-story courthouse building at a cost of over $500,000. The site of the building will be on the Court Square behind the present county building.

Officials said that bids on the new structure will be accepted up to 2 p.m. Aug. 3.

'Souped-Up' Air Conditioning System Reaches Out And Brings Passers-by Right Into the Store

ST. LOUIS—A "souped-up" air conditioning system is doing double duty at Sobel's department store, a small community department store on 14th St. located here.

The 13-ton Chrysler Airtemp installation is not only keeping the store comfortably cool, but is also luring passers-by into the store during hot weather.

Sam Sobel, owner, was told that a 10-ton system would be adequate to cool his store to 80° F. when outside temperatures reached 110° F. But Sobel had a 13-ton system installed and over-powered the blower by 1,200 c.f.m.

FRONT ENTRANCE KEPT OPEN

Now when outside temperatures get uncomfortably hot, Sobel keeps his three front entrances open, forcing a blast of cool air out over the sidewalk. Passers-by on the heavily traveled street gasp with relief when the cool air hits them and many turn into the store to shop.

"When the thermometer goes over 95° F., we close the doors," Sobel said. "But until then, the air conditioning system is doing a double job for us, providing interior comfort and enticing new prospects in from the front sidewalk."

Sales results have been sensational, Sobel indicated. Where the store previously sold only a small percentage of its annual volume between June 1 and Sept. 1, it now sells only slightly less in summer than in winter.

With two air conditioned summers behind him, Sobel traces this growth in volume to the fact that many of his customers now go out of their way to do their summer shopping in his air conditioned store.

Plan To Air Condition New 'Inverted Pyramid' Building

ST. LOUIS—Air conditioning will be a feature of "one of the most unusual buildings in the midwest," an ultra-modern structure based on an inverted pyramid design.

It will be built in Clayton to house executive headquarters for American Investment Co. of Illinois. The three-story building and a full block of parking space, at 8209-8300 Maryland Ave., will cost an estimated $1,500,000.

The entire building will be air conditioned with a new system permitting individual thermostat control in most offices. The system uses high velocity air in the perimeter zones and low velocity air for interior zones.

American Air Filter Takes Ice Cooling Appliance Corp. Plant In Morrison, Ill.

LOUISVILLE, Ky. — American Air Filter Co., Inc. has purchased the entire plant and equipment of Ice Cooling Appliance Corp., Morrison, Ill., W. M. Reed, president, announced recently.

Ice Cooling Appliance Corp., a subsidiary of City Products Corp., Chicago, manufactured ice refrigerators, freezers, soft drink coolers, and vending machine parts.

The 152,000-sq. ft. Morrison plant will be operated by AAF's Herman Nelson Div., Moline, Ill., which produces heating and ventilating equipment for schools, industrial, commercial, and institutional buildings, as well as special portable heaters for Arctic Air Force bases, Reed said.

Herman Nelson was to have taken possession of the Morrison plant by July after Ice Cooling Appliance Corp. completed current contracts. In full production the Morrison plant will employ approximately 200 people, doubling the previous payroll, according to Howard M. Fitch, AAF vice president and general manager of the Herman Nelson Div.

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Faster-Freeze Finned Cube Makers

The PEERLESS Finned Faster-Freeze Cube Maker provides both refrigeration and rapid ice-cube manufacture from a single, balance, compact unit. Its fin coils are standard PEERLESS coils with nonsoldered return bends . . . the ice-cube maker is standard PEERLESS all-aluminum construction. Easy installation and trouble-free operation are outstanding features; these Finned Cube Makers are available with either copper or aluminum tubing, permitting choice of refrigerants. Plain type cube makers also available. Sizes, capacities for all requirements. Designed to meet government specifications. Write for details.

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Regardless of the UNIT You Buy...
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Capacities—⅓ thru 25 H. P.
All Water-cooled, Double tube, Counter-flow

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HOBART BALDWIN

CLARKE HOGAN

HERMAN WARREN

JACK SALE

Reading Tube Expands Southern Representation

NEW YORK CITY — Reading Tube Co. has engaged three new sales representatives and has increased the territories of two other representatives in the south.

The new salesmen are Jack Sale who will represent Reading in North and South Carolina, Herman Warren who will cover Georgia, and Clarke Hogan who will travel Florida.

Hobart E. Baldwin, serving Maryland and Washington, D. C., will now also cover Virginia. The firm of Harwell and Rosselot, now serving Arkansas, will also cover Tennessee.

Spencer Mieras Appointed Bonney General Manager

ALLENTOWN, Pa. — Organizational changes of personnel in Bonney Forge & Tool Works here were announced recently by Joseph W. McDougal, president of Bonney & Miller Mfg. Co., Detroit (Bonney is a subsidiary of Miller).

Spencer H. Mieras has been appointed general manager and Kenneth Foust secretary-treasurer. Both are with the Miller organization in Detroit.

Martin Schletter Named Tenney Sales Engineer

UNION, N. J.—Tenney Engineering, Inc. announces the appointment of Martin Schletter as sales engineer, Environmental Equipment Div. He will assist Robert Brown, vice president in charge of sales, in handling customer relations and directing sales policies.

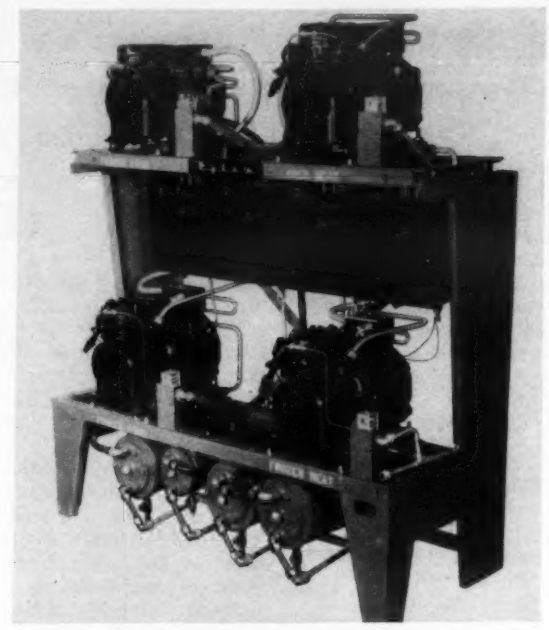
In addition to previous experience in the sales department, Schletter has gained experience on low temperature, humidity, altitude, and other enviromental chambers in Tenney's field service, testing, and design departments.

Previous experience includes district sales work for Tek Bearings and supervisory duties in the production department at Tung-Sol Electric.

2 West Coast Concerns To Represent Dryomatic

ALEXANDRIA, Va.—Appointment of two new sales and service representatives to increase coverage of its line of dehumidifiers on the West Coast has been announced by Anthony Hass, vice president and sales manager of Dryomatic Corp.

The A. B. Murphy Co. of San Francisco will represent Dryomatic in northern California and western Nevada. Monitor Inc. of Seattle will cover Washington, Oregon, and northern Idaho.



"SCOTCH 4-SOME" MULTIPLE CONDENSING UNIT assembly developed by Tyler Refrigeration Corp. is a completely engineered remote-unit refrigeration system, pre-wired at the factory and delivered as a single unit. This condensing unit assembly is claimed to cut the cost of remote refrigeration installation and maintenance; save floor space; and provide improved performance.

Tyler Multiple Condensing Unit Assembly Saves Floor Space and Service Costs

NILES, Mich.—A new multiple condensing unit assembly, said to be the first completely factory-engineered remote unit refrigeration system, has been introduced by Tyler Refrigeration Corp., for use with Tyler commercial cases.

Designated as the Tyler "Scotch 4-Some," the new product is designed to cut installation and service cost of remote unit refrigeration, save valuable floor space, and improve performance.

It consists of four water-cooled semi-hermetic condensing unit assemblies and pre-wired controls, installed on one sturdy, compact rack occupying only 10 sq. ft.

According to the manufacturer, this is approximately half the space required for ordinary installations.

"The 'Scotch 4-Some' is delivered as a unit, with minimum field installation required," Tyler said. "Economy of installation is achieved because the entire hookup requires only one electrical service through a single raceway; one water supply intake; one drain connection—for all four machines.

"Lower maintenance costs are claimed because of compact convenience and accessibility.

"All condensing units are clearly identified according to remote equipment involved. The usual angle iron supports and brackets have been eliminated. The lowest assemblies are raised at least 18 in. above the floor."

The Scotch 4-Some comes equipped with any standard size Tyler condensing unit specified, from ½ to 5 hp.

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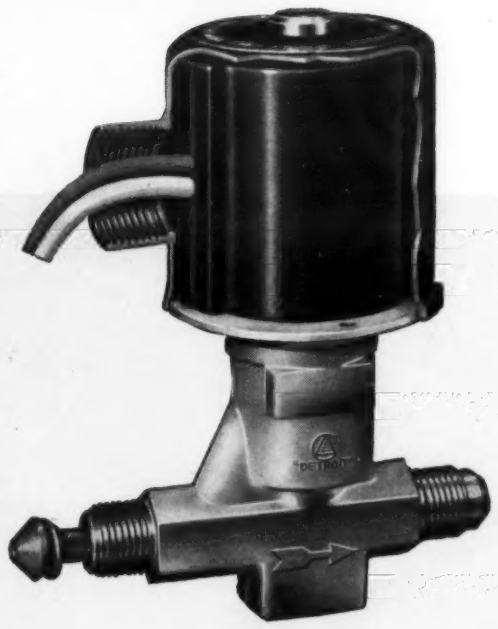
No. 683 Solenoid Valve
With Built-In Strainer In All Models

- Capacities to 5.1 Tons Freon-12.
- Plastic-imbedded waterproof coil.
- Quiet operation—no A.C. hum.
- Rugged forged brass body.
- Connections available for flare, sweat or pipe thread applications.
- Sturdy mounting boss.

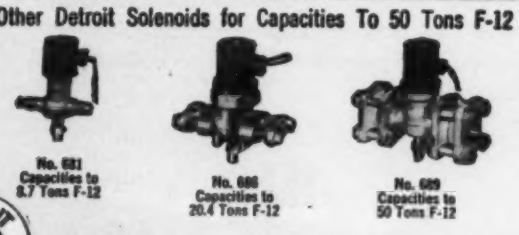


683 in forged brass body available with either flare (⅜" S.A.E. for ⅜" x ¼" reducing nut) or sweat (⅜" or ½" O.D.) connections.

Barrel type internal strainer supplied with sweat and pipe thread models.

683 also available in cast brass body with ⅜" female N.P.T. inlet and outlet connections.

Other Detroit Solenoids for Capacities To 50 Tons F-12



No. 681 Capacities to 8.7 Tons F-12 — No. 686 Capacities to 20.4 Tons F-12 — No. 689 Capacities to 50 Tons F-12

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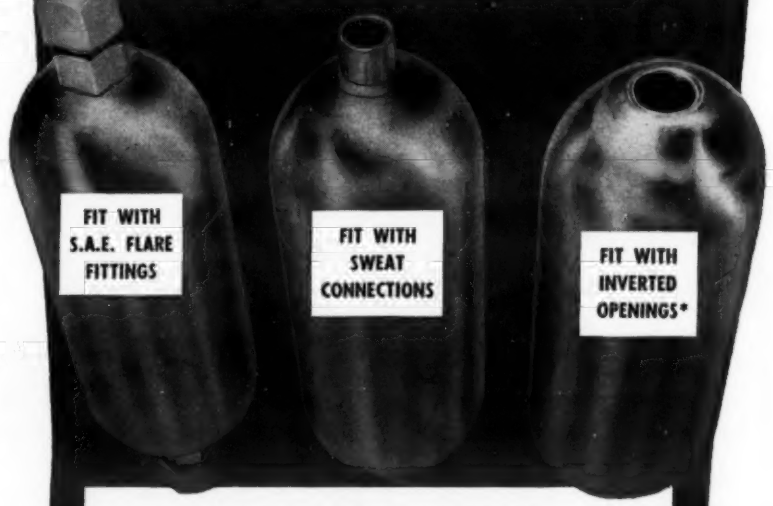

FIT TO CUT YOUR PRODUCTION COSTS

Only the Remco SUPER-FLO Filter-Drier can offer you the real production economy of *your choice* of end fittings. SAE Flare Fittings . . . when convenience in field replacement of units is paramount. Sweat Connections . . . when your plant facilities make sweat connecting most practical . . . and you wish to cut unit costs by 25%. Inverted Openings (*for Silver Brazing) . . . when permanence is a must, when assembly costs must be cut, and when you wish to reduce unit costs by 36%.

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SUPER-FLO is guaranteed to be the lowest price Filter-Drier for original equipment in production quantity orders on the market today. Here's all the famous Remco quality . . . massive fiberglas depth filters, famous molded Remcal drying elements (for high temperature moisture and acid removal), and spun-end copper shells.

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AIR CONDITIONING

Unusual Installation of Console-Type Room Units Air Conditions Inside Offices Without Using Water or Floor Space

WASHINGTON, D. C.—Two recent air conditioning installations in the offices here of E. C. Ernst, Inc., an electrical contracting and engineering firm, illustrate the flexibility of air-cooled console-type room units which cool, dehumidify, and ventilate one or more rooms depending on their size.

The Ernst general offices and drafting rooms are in a modern, two-story building, with offices on the second floor, drafting and stock rooms on the first.

EXECUTIVE OFFICES OFFERED SEVERAL PROBLEMS

Air conditioning of 14 rooms of the second floor offices is handled by two packaged, water-cooled store units connected to the rooms by ductwork. However, two executive offices in the center of this floor could not receive sufficient cooling or much needed ventilation and required special treatment.

The problem was to find a unit powerful enough to cool and ventilate both offices without affecting the decor or using up valuable floor space. Further complications arose from the fact that these inside rooms had no windows or other direct access to air supply, and further use of water would require costly additional plumbing. Officers of the Ernst Co., working with Remington Corp., air conditioner manufacturer, and the firm's representatives, plotted an ingenious solution.

SKYLIGHT USED AS SOURCE OF OUTSIDE AIR

Using the skylight of an adjoining drafting room as the outside air source, a 1-hp. console conditioner was built into this drafting room, in an above-head enclosure near the ceiling, where it occupies no working space. Air duct for condenser air and ventilation air was connected to an opening through the skylight. The cooled, conditioned air is carried from the console to one inside office by a 12-ft. run of duct and to the other by an additional 10-ft. extension. Recirculated room air is similarly handled by another duct.

All ductwork and the Remington unit on its high-level platform are enclosed with plywood paneling which blends with the office decor. A hinged door provides entry for service and filter changing. A damper knob protrudes through the bottom of the enclosure.

Damper is left half open the year around, and the unit runs constantly on "cool" or "fan" since fresh air is required in the interior offices at all times.

GRILLE IS ONLY VISIBLE EVIDENCE OF COOLING

The only visible evidence of air conditioning are the wall grilles. Thermostat in the office of the vice president keeps room temperature at a constantly comfortable level.

The drafting rooms on the first floor provided a second problem, solution of which lay in another ingenious installation that used no work space. These drafting rooms are constructed at the front end of a high ceilinged stockroom.

HEADER SPACE USED FOR 1½-HP. UNIT

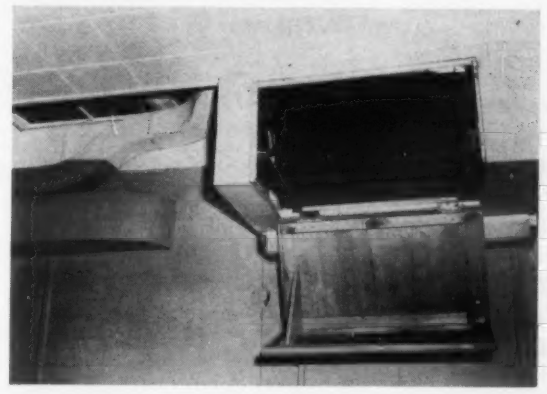
A header space above the ceilings of the two rooms and opening into the stockroom provided space for a 1½-hp. console unit which is connected to a nearby window by standard duct for condenser supply and exhaust.

A split duct carries conditioned air from the unit through a 10-ft. run between ceiling joists to air diffusers built into the ceilings of each room. Return air is handled with shorter ducts leading from ceiling openings. Fresh air is carried by a special 8-ft. duct to the return air duct at the unit.

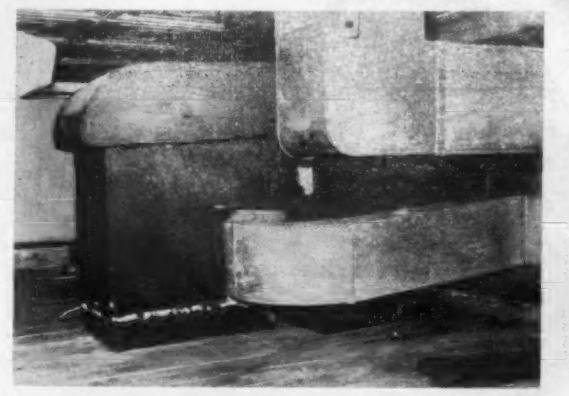
Ducts have been combined into one assembly at the unit. Each duct is insulated, and construction permits entire section fastening to the unit to be removed for filter inspection and servicing.

These installations exemplify what can be done with ingenuity and with equipment that lends itself to flexible application. The two Remington "Leader" consoles provide four rooms with economical cooling and all-year ventilation, provide access to outside air, present a system blending with interior decoration, and occupy no useful work area. Remington has now developed an electrical heating unit, which at nominal cost can be installed in the consoles for supplementary heat during the cool seasons.

ONLY VISIBLE evidence of air conditioning in this finely panelled office of E. P. Johnson, vice president of E. C. Ernst, Inc., are grilles built into the wall above head level.

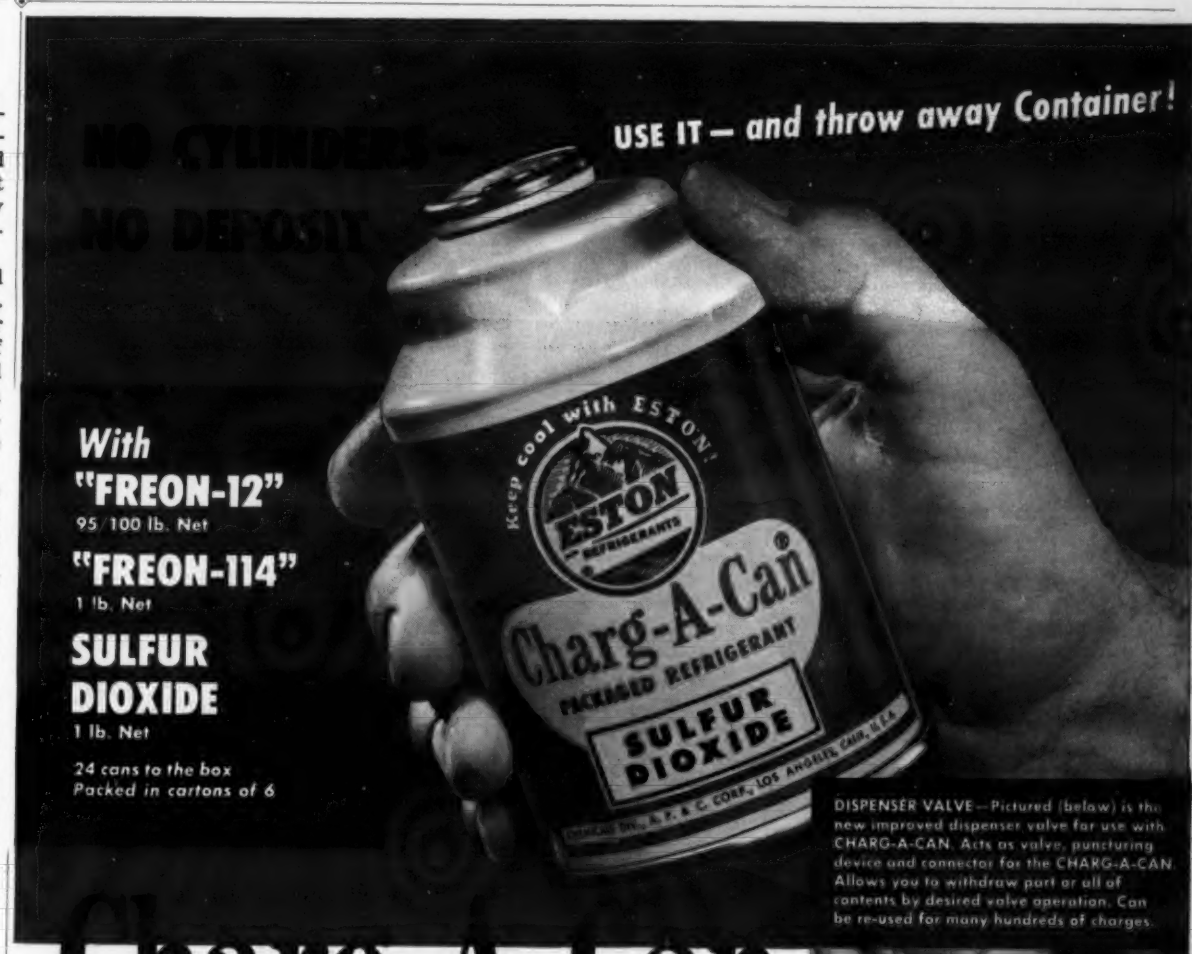


THIS INGENIOUS installation, near the ceiling of a drafting room, conserves valuable working space. The 1-hp. air-cooled Remington console completely air conditions two adjacent offices.



The 1½-hp. Remington unit which air conditions two drafting rooms on the first floor of E. C. Ernst's building is built into a header space above the ceilings of the two rooms. Ductwork connects the air-cooled unit to a nearby window for air condenser air supply and exhaust.

WHEN DOOR IS CLOSED, the above-head-level installation and ductwork blend with the drafting room's decor. A damper control knob protrudes conveniently from the bottom of the console's panelled enclosure.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NO DEPOSIT
USE IT — and throw away Container!
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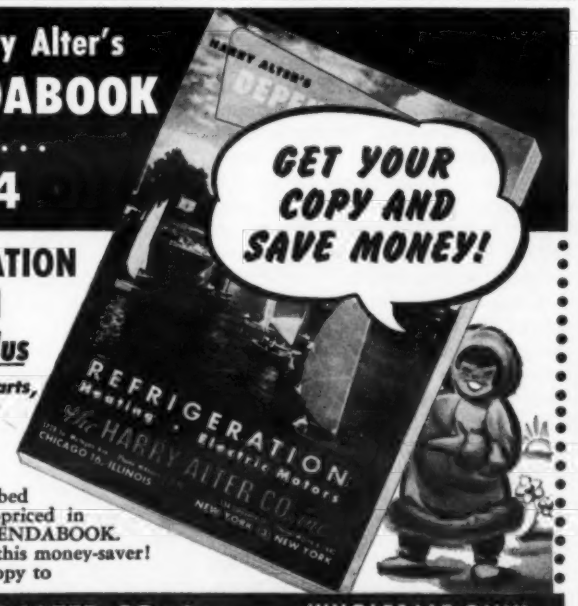

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Sensible Judgment

By a vote of six to two, the United States Supreme Court has upheld a Virginia State Court ruling that a union charged with violence during a labor controversy can be sued in a state court rather than being prosecuted under the Taft-Hartley Act.

Nothing in the Taft-Hartley law deprives states of their "inherent police power" to deal with local controversies, according to that Supreme Court ruling.

To the layman, this judgment goes along with common sense.

A local government which did not have the power to maintain order in its own community would not be a government at all.

And if it had to run to Washington every time a brawl occurred, community cogence and cohesiveness might dissolve into small-time anarchy.

What *is* surprising is that the U.S. Supreme Court would have to make such a ruling.

During the last three decades our judiciary and the Administration have granted unions a privileged status in relation to local law, state judiciousness, and national policy.

Reprehensible labor violence became possible under the sway of that doctrine. And the doctrine itself has been given a sort of quasi-legal standing by earlier rulings of a left-wing packed National Labor Relations Board.

Praise be, the present NLRB isn't so tainted.

This Supreme Court decision should do much to restore the power of the state governments to manage their own affairs.

They'll Do It Every Time . . . . . Jimmy Hatlo

WELL--HAVE A GOOD VACATION, HENRY--OH, BY THE WAY--YOU MIGHT TAKE THESE REPORTS ALONG AND CHECK THEM OVER--I'D LIKE TO HAVE THEM IN SHAPE TO PRESENT AT THE BOARD MEETING NEXT WEEK--ARE YOU GOING TO DROP IN AT OUR HORSECHESTER BRANCH WHILE YOU'RE UP THAT WAY?
YEAH--HAVE A GOOD TIME--RELAX--FORGET ABOUT THE OFFICE--JUST TAKE A MONTH'S WORK WITH YOU...
BIGDOME DON'T BEGRUDE A GUY HAVING A VACATION--HE JUST BEGRUDGES HIM ENJOYING IT--
TAKE THE COMPANY TRUCK ON YOUR TRIP AND MAKE DELIVERIES ALONG THE WAY--
THAT'S FAIR ENOUGH--TREMBLECHIN'LL WORK DURING--HIS VACATION--HE LOAFS THE OTHER FIFTY WEEKS OF THE YEAR!
J.P. BIGDOME
JIMMY HATLO
HENRY WON'T HAVE TIME TO SEND A POST CARD...
THANX AND A TIP OF THE HATLO HAT TO MILBOURNE CHRISTOPHER, LONGACRE THEATRE BLDG., NEW YORK, N.Y.
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Cities, too.

And *local* dues-payers and tax-payers and property owners AND decent people anywhere.

It's a victory for the so-called Common Man. If enforced, this ruling means that Joe Citizen shouldn't have his new home dynamited if he conscientiously disapproves a Union Boss action.

ACCURATE MACHINING TO CLOSE TOLERANCES—

In order to guarantee efficient operation, perfect fit of all moving parts is absolutely essential. To this end, Tecumseh has invested in the latest machine tools designed not only for high capacity but, more important, for accurate machining of all parts. Special machines have been designed such as the one shown above. This machine drills oil holes in crankshafts at the rate of 450 pieces per hour. Further as an indication of the accuracy we require in our shop, machined surfaces are held to a few millionths of an inch. Cylinder bores are held to .0002" out of round and out of taper combined, and shafts are ground to .0002". This combination of speed and extreme accuracy makes it possible for Tecumseh to provide our customers with a better compressor at the lowest possible cost.

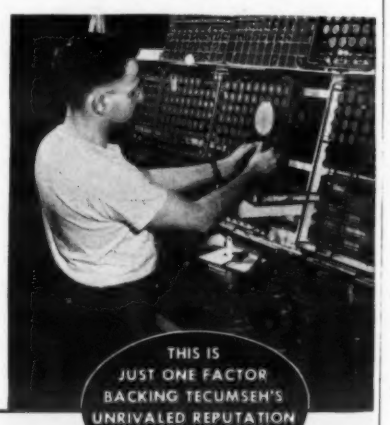
These very close tolerances naturally require selective fit for the main subassemblies. In the photo at the right, you will note the selective fit of piston to cylinder. Down the line, rod to crankshaft, piston to pin, etc., are assembled in the same manner.

Close attention to machining and fit assure our customers that the Tecumseh compressor they receive in their plant will be a quality product. Proper production control results in better lubrication of all parts, assuring longer life and less wear to the compressor. Tecumseh's record of field rejects (less than 1% returned under warranty for complete systems) is proof of the manufacturing skill incorporated into each compressor. This is just one more reason why Tecumseh compressors give long years of dependable, trouble-free operation in the field. Check with your Tecumseh representative for full details.

Upper Left
Multiple drill for boring and tapping crankshaft oil holes

Upper Right
Grinding and checking piston diameters

Below
Selective fit, piston to cylinder



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Cincinnati, Ohio

Editor:

Invariably after a strike is settled it develops that nobody won. Not everybody agrees with this because usually the facts are not clear enough to permit an accurate analysis of the figures involved.

But here is a case where facts prove how futile a strike is.

The Union Pipefitters employed in the air conditioning industry in greater Cincinnati went on strike on June 1, after four weeks of ridiculous demands, offers, counter-offers, etc. Basically the demand was for a 30 cents per hour wage increase to bring the hourly rate from $3.10 to $3.40. In addition to this rate the employer has been paying 8½ cents per hour into a Health, Welfare, and Educational fund for every hour worked by every man, including apprentices. Just before the deadline, the employers offered an increase of 10 cents, making the hourly rate $3.20.

But, the union rejected this offer even though the Building Trades' Council had proposed the 10-cent increase to all members in the building industry as fair.

No counter proposal was made by the union representatives and the strike was called.

It lasted a month, during which time all union air conditioning and refrigeration installation and service was completely halted. This was a severe blow to all contractors because 20 to 25% of all of our business is done in June. It was a severe blow to the public because, after a cool May during which there was not much demand for such service, temperatures rose far above normal during June.

It was a severe blow to all the union men because instead of getting their $3.10 per hour, or $120.00 per week, they got only a nominal strike benefit.

After almost a month, the union agreed to take 15 cents per hour increase to make their rate $3.25, only 5 cents per hour more than they were offered before the strike was called.

Now, for the sad facts of arithmetic.

Each man *lost* a minimum of three weeks at $120.00 per week or $360.00. This does not include the usual many hours and dollars of overtime earned during every June.

The 5 cents per hour the man gained amounts to 40 cents per day or $2.00 per week. The new contract runs for eleven months or 48 weeks.

During this period, if he works the full five eight-hour days per week, he will get 48 times $2.00 or $96.00 more than if he had not walked out.

It's easy to figure that each man lost well over $250.00 by the strike.

When are we going to learn that a strike helps nobody, hurts everybody, including the striker, and *never* settles anything.

This letter is written in the hope that being a clear cut case of a ridiculous and futile strike, more people may see the folly of using force instead of sane arbitration.

These are all facts, not heresay, and I was a member of the negotiating committee.

ARTHUR RADTKE

Canter and Oller
Sidney, Ohio

Editor:

Referring to your June 28 editorial, we should like to add our small voice to this matter of Loyalty.

We have been a Frigidaire dealer since 1939 and are fiercely loyal. We also have the feeling the loyalty is mutual. However, we have always managed to do a little better than 100% of our quotas. If we were suddenly to start losing business due to poor management and all the things necessary to run a successful business we don't feel we would be entitled to very much loyalty from our distributors.

If you read the retail economic forecast early in 1954, and were guided accordingly it's an even bet your business is no better than last year, and probably not as good. We took the opposite view, feeling that if our competition *knew* business would be bad they would make it so. We have promoted harder, worked longer hours, and as a result our gross volume as of the end of June is 28% ahead of 1953, and 1953 was a pretty good year.

In our opinion, a dealer is entitled to Loyalty only as long as he is getting the volume his product deserves. The manufacturer's responsibility is to give the dealer the best product he possibly can at a competitive price, and back up the dealer with advertising and sales promotion aids. If both do a good job, Loyalty is automatic. Do you agree?

L. E. CANTER

Polaroid Camera Speeds Sales of Used Commercial Fixtures

Pictures Sell Trade-Ins Before They Leave Original Site, Cut Trucking Costs

TRAVERSE CITY, Mich.—Most people agree that "a picture is worth a thousand words," but to one commercial refrigeration dealer here a single picture can mean the sale of a used piece of equipment taken in on trade.

Earlier this year Paul Garthe of Paul Garthe Refrigeration & Appliances, Inc. decided to try using a Polaroid Land camera to take flash pictures of used refrigeration equipment. With this camera the photographer develops the film in the camera in 60 seconds.

"It's very difficult for the average grocery store owner, for example, to get away from his store to look at a piece of used equipment he's interested in which may still be in a store many miles away," Garthe says.

"And he usually is reluctant to buy the used fixture just on the strength of a salesman's word-of-mouth description. But a picture is very convincing.

"This is especially true if the picture of the equipment was taken when it was still in place in the store. This seems to have better effect on the prospect, probably because he can then visualize it better in his own store.

"What the camera has meant to us, also," Garthe says, "is that we're frequently able to resell a piece of equipment on which we've given a trade-in allowance even before it leaves the original store. This saves time and the expense of first bringing it into our store and then taking it out again."

Very first day Garthe had the camera he took a picture of a used case in the morning and sold it that afternoon because he had the picture.

Using a camera of this type is perhaps a little more expensive than conventional cameras, but the advantages of immediate development of the picture (which can be taken over if necessary) more than outweighs the cost angle, Garthe believes.

Not every picture has resulted in an immediate sale, he indicates. If, however, the equipment isn't sold by the time the firm's monthly "Cold Facts" newsletter for customers and prospects is about ready to go to press, the photo is published in that edition.

A sale is almost certain to result then, for the newsletter is lively and thoroughly read, past experience has shown Garthe.

"Using the camera has certainly paid off for us," he emphasizes, pointing out also that he knew nothing about photography before getting the camera.

TAKING pictures of used commercial equipment has sometimes permitted Paul Garthe to resell fixtures taken on trade even before they're removed from the store.

DEVELOPING picture on spot with Polaroid Land camera lets Garthe check results and retake photo if necessary. Such speedy development has also on occasion permitted him to sell used case same day he took picture.

Bally Names 2 Distributors

BALLY, Pa.—Two new distributors have been appointed in New Jersey by Bally Case & Cooler Co., according to Leon Prince, sales manager.

Camden Store Fixture Co. of Camden will handle distribution of Bally's full line of refrigerated display cases and coolers in Camden County and the surrounding area.

Refrigeration of North Jersey, Dover, will distribute the Bally line in Morris, Sussex, and Warren counties.

Commercial Refrigeration

Tweed Manages Dole's New S'western Branch

CHICAGO — Dole Refrigerating Co. here has announced the opening of a southwestern factory branch in Phoenix, Ariz. It is located at 2035 McDowell Rd.

B. P. Tweed

Under the management of Bruce P. Tweed, formerly of Chicago headquarters, the new branch will service commercial refrigeration accounts west of the Rockies.

Cool Church Auditorium

SPARTANBURG, S. C.—Morningside Baptist church will erect a large new auditorium on South Church St. at a cost of $147,000. Seating 850 persons, it will be air conditioned. The firm of Christman & Parsons has the construction contract. Work on the project begins immediately.

Sunroc Announces New Coin Operated Dispenser For Milk by the Cup

GLEN RIDDLE, Pa. — A new coin operated, refrigerated, bulk milk cup vendor will be ready for market by late September, the Sunroc Co. here announced recently.

Called the MV-1, the new vendor is a 40-qt. cabinet model similar in operation to the model M1 bulk milk dispenser designed for the mass feeding industry, the company said. It is equipped with a change maker, cup vendor, and automatic metering device.

The metering device activates the dispensing mechanism and accurately records the number of drinks dispensed. Every cup of milk dispensed is the same measure since the metering device automatically compensates for variation in milk level as each cup is drawn, Sunroc explained.

The model MV-1 will be mass produced in Sunroc's own factory here. The company is accepting orders on a first-come, first-served basis.

WANTED . . . *exclusive franchise* DISTRIBUTORS *for*

COLD CACHE
FROZEN FOOD LOCKERS
"IN A WARM ROOM!"

. . . something entirely NEW in food retailing!

The greatest basic improvement in frozen food lockers in 20 years, backed by 7 years of engineering development and market-testing on the West Coast, now ready to go national. The "freeze the food—not the customer" idea brings consistent reports of 40% food sales boosts, building new regular food customers out of locker renters. Flexible design fits any floor plan, requires no capital outlay for added building, converts dead floor space into money. Every food store is a potential customer. Simple installation, self-operating, lifetime, trouble-free operation. Rugged, first quality construction throughout.

National distribution backed by aggressive promotion to help you sell, help operator rent.

Average installation self-liquidating within 5 years. The ideal addition for retail operators looking for the important competitive edge.

No more icy rooms, arctic clothing needed when locker-shopping now! Revolutionary COLD CACHE frozen food lockers make it as comfortable for the housewife as the food market itself.

HERE'S WHAT YOU'LL HAVE TO SELL:

Customer Appeal
The convenience and economy of locker cold storage *plus* the comfort and easy access of a food market. No fur coats, no colds. Clean, modern lines.

Flexibility
Designed to fit existing floor plans, no special construction. Can be moved, added to, or rearranged to fit store growth.

Dependability
Proved in 3 years of installations in the Western States and Alaska. All bugs engineered out. Self-operating, no maintenance. Ruggedly built to last a lifetime. Temperature controlled within 2°; air-conditioned to filter out odors.

Profits
Builds regular store traffic, boosts bulk and frozen food sales. Operators report over 80% consistent rentals leading to self-liquidation within 5 years. Converts dead floor space into dollars.

VIRGIN TERRITORY AVAILABLE

Here's a golden opportunity to tie up with a really new, really advanced development. Inquiries regarding exclusive franchise dealer-distributor arrangements, from any area, are invited. For complete information and case histories, outline your qualifications in a letter to:

ROOM-TEMP LOCKERS, INC.
Security Building, Tacoma 2, Washington

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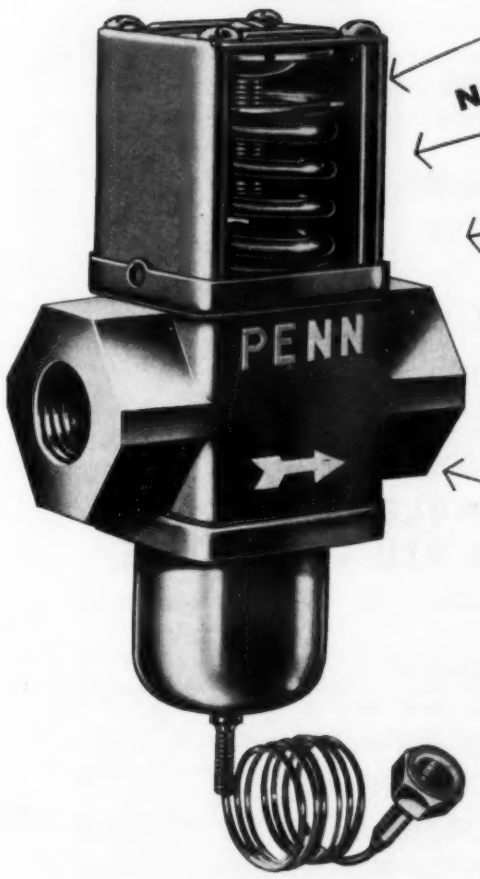

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EASY MANUAL FLUSHING

And the Penn water valve is very sensitive to changes in refrigerant head pressures to assure highest operating efficiency. Try the Series 246 on your next refrigeration job . . . you'll discover it will *stay on the job* much longer than other water valves.

Sizes from ⅜" to 2½" in flanged and threaded styles . . . also available for temperature actuated service. Ask your wholesaler or write **Penn Controls, Inc., Goshen, Indiana.** Export Division: 13 E. 40th Street, New York 16, N. Y., U.S.A. In Canada: Penn Controls Limited, Toronto, Ontario.

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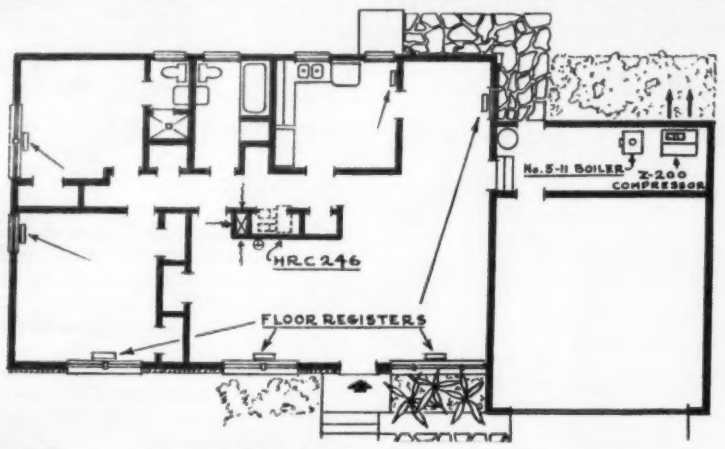
Residential Air Conditioning



DRAWING shows location of registers, boiler, compressor, and Drayer-Hanson "Spotaire" coil and fan.

'Air Conditioned Village' Is Location of Experiment In Crawl Space Heating, Cooling

AUSTIN, Texas—An experiment in crawl space heating and cooling is being conducted in the industry test center known as the "air conditioned village" here by Drayer-Hanson, Inc.

In one basementless home, a Drayer-Hanson "Spotaire" (HRC-246) coil and fan are suspended in the center of the crawl space, while condensing unit and hot water boiler are located in the carport. The entire crawl space has been insulated and is used as a plenum with floor registers at all exterior doors and windows. The only duct in the house is for return air in the end of one of the hall closets.

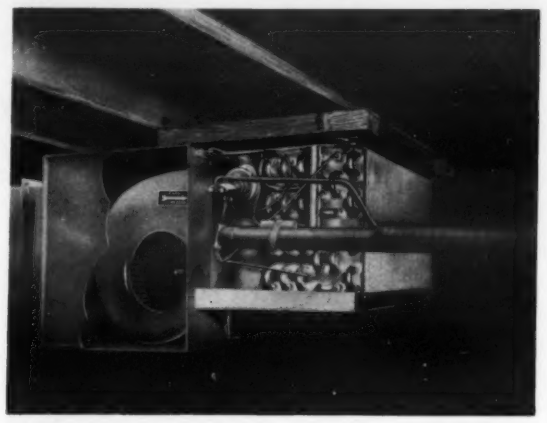
A combination radiant and convection-type system offers warm floors in the winter and cool floors in the summer as well as conventional air distribution.

To reduce heat gain Kaiser venetian screen is on all windows, and the house is insulated with 4-ply aluminum foil in the ceiling, 2-ply aluminum foil in the walls, and rigid insulation in the crawl space.

With conditioned air being discharged into the crawl area, serving as one master plenum, no supply ducts are used. Proper air circulation can be obtained simply by having floor registers (2 by 14 in.) at all exterior doors and windows.

The only duct in the house is for return air (10 by 14 in.) in the end of one of the hall closets. The return registers were placed 6 ft. 8 in. from the floor in the hall and in one bedroom.

If the owner is not satisfied with the designed air distribution system, more air can be provided in a space by cutting a hole in the floor and adding a register. Less air can be provided by closing the register. This reportedly will provide a low first cost system, with maximum flexability, at minimum operating costs.



CRAWL SPACE installation showing "Spotaire" coil and fan and return air duct.

A Copelametic 2-ton air-cooled condensing unit was placed in the carport using "Freon-12." A U. S. Radiator 5-11B hot water boiler was also placed in the enclosed rear portion of the carport to supply hot water to the crawl space unit during the heating cycle.

This boiler is made of cast iron and is completely factory assembled and AGA approved. It can be used with any gas—natural, mixed, L.P., etc., and is rated at 90,000 B.t.u./hr.

The system is controlled by a single Minneapolis-Honeywell Chronatherm and a summer-winter switch. On cooling the switch controls the compressor, and on heating, the hot water circulator. The total heat gain was determined to be 18,025 B.t.u./hr., plus the dehumidification factor of 5,430, giving a total cooling load of 23,455 B.t.u.

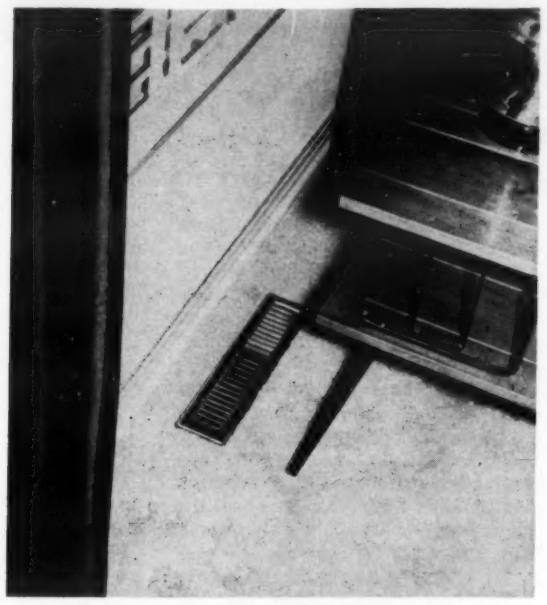
In order to properly insulate the crawl space and seal it against air loss, the perimeter was insulated just behind the stucco underpinning, first with ½-in. gyplap from ground to sill height, and inside the gyplap ¼ in. Celotex was used for rigid insulation from ground to sill.

The fill was placed under the house, tamped and leveled, after the sills were laid, but before placing the floor joists on the sills. Before laying the floor joists vaporseal was placed on the ground rolled up the underpinning to the sills.

This vaporseal was a membrane of 3 plys of asphalt, saturated felt hot mopped, and lapped in the same manner as vaporseal underneath a slab foundation. It was hot mopped onto the sills and interior piers in order to insure its being moisture and air tight.

After laying the floor joists, the flooring was placed in the conventional manner. Interior walls were ½ in. sheetrock throughout the house with insulation of 2-ply Alfol in exterior walls and 4-ply Alfol in the ceiling.

The builder was the First Austin Investment Co., with installation being done by the Jay Matthews Co., supervised by the Luedecke Engineering Co., the local sales representative of Drayer-Hanson, Inc.



LIVING ROOM grilles measure 2 in. by 14 in.

'Climate King' Heat Pump Needs No Water

MIAMI, Fla.—Designed with the "sole purpose" of eliminating the use of water, an air-to-air heat pump has been introduced locally under the name "Florida Climate King."

National distributor is Alvin Sales Co. here.

The packaged unit provides summer cooling or winter heating by reversing the air flow instead of the refrigerant flow. According to the distributor, this "eliminates the extra fittings that go with the reversal of the refrigerant and cuts to a minimum the danger of leaks," in addition to requiring no water.

An additional feature claimed for the unit is pump-out of air from the home, which can also be done when the unit is neither heating nor cooling, thus giving a complete change of indoor air within a few minutes, it is said.

Currently being manufactured in 2 and 3-hp. sizes, the Climate King has a hermetic compressor. It is designed for 220-volt, 60 cycle, single phase current.

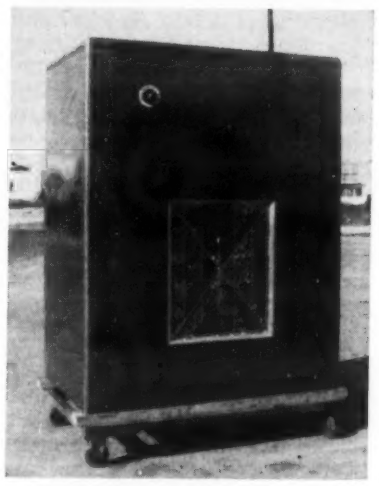
Unit stands 3 ft. long, 2 ft. wide, and 6 ft. high.

Thermostatic control which will automatically switch the unit from cooling to heating or vice-versa to maintain a constant temperature is available with the heat pump.

"A central control station regulates the unit," the distributor states, explaining that "additional controls stations (an optional feature) may be placed in as many locations as convenience demands."

Regarding cost of the unit, Alvin Newman of the distributorship says it will "give efficient heating and cooling for the average home of $10,000 to $15,000 bracket where the cost won't exceed 10% of the house for air conditioning, plus 2% to 3% for installation of the unit under a subcontract by the builder. Of course, the price for installation will be very much more for an existing home."

The distributor also makes note of the unit's built-in "Noise Silencer." This is said to bring "the level of noise down to that of the latest refrigerators on the market and make placement of the unit as feasible inside the home in a closet or laundry room as outside in utility room or garage."



"Florida Climate King" Heat Pump.

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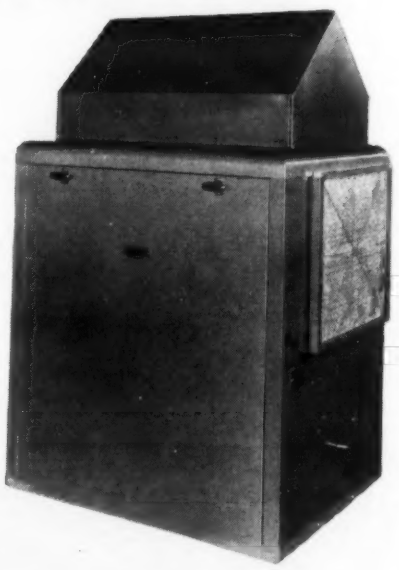
SCHNACKE SELF-CONTAINED AIR CONDITIONING UNITS FOR HOME OR BUSINESS



TRIPLE-THREAT in Application:

1 - Use as add-on unit to existing forced feed air furnace installation.

2 - Use as integral unit for air conditioning duct systems.

3 - Use as in-the-space self-contained air conditioning unit.

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- Plenums, blowers, and condenser tower heads optional.
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1101 North Governor St. SCHNACKE, INC. Evansville Indiana

eliminate pump-to-drain disposal line with

NEW high-pressure Condensate DISPOSAL UNIT (MODEL CCC)

- ⅓ H.P. MOTOR — pumps against 100 lbs. pressure
- AUTOMATIC OPERATION mercury float switch
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No need to run separate disposal line. Water is pumped directly into the condenser water line, through check valve furnished.

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Theory and Practice of Heat Pumps

Part 3—Heating and Cooling Cycles

With interest in heat pump air conditioning systems continuing to mount, the NEWS is presenting a concise explanation of the principles involved in such systems, in a series of articles by K. D. Cunningham. This is the third article in the series.

There will be some emphasis noted on the "water-to-water" type heat pump in this series of articles, as the author has been concerned primarily with the development of this type system.

By K. D. Cunningham, Acme Industries, Inc.

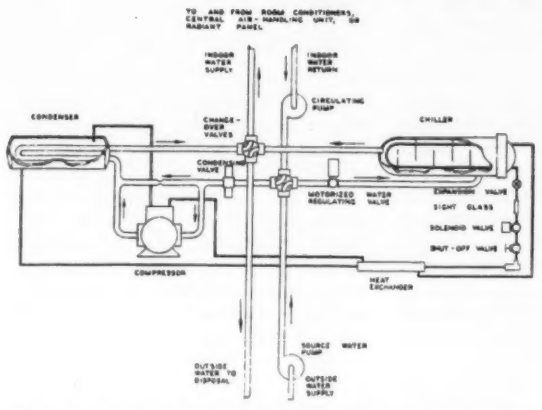

FIG. 1. The heating cycle, showing how the fluid used as a heat source is pumped to the chiller, where the temperature of the fluid is reduced. Assuming a reduction in the heat source from 50° to 40°, the heat pump would pick up 10 B.t.u. for each pound of water circulated.

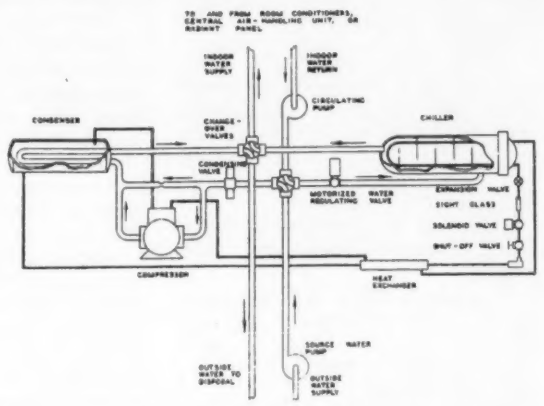

FIG. 2. The cooling cycle, showing how the liquid in the closed internal circuit passes through the heat pump to the chiller, rather than to the condenser. The water is reduced in temperature in the chiller, and then returned to the air handling equipment in the conditioned structure.

Previously in this series we have discussed various heat sources available to the heat pump (Part I) and methods of distributing heat within a building (Part II) and are now prepared to consider the heat pump itself.

Basically this unit is capable of removing heat from the building for summer air conditioning and of taking heat from an outside source and transferring this heat to the building for the purpose of winter heating.

We refer to the Acme Flow-Temp heat pump as a fluid to fluid unit. While this "fluid" is usually water, in certain cases it may be a glycol solution to prevent freezing when the outside source of heat is a ground coil or outside air. In such cases both inside and outside circuits are closed. With most water to water type systems, however, the outside circuit is usually open.

THE HEATING CYCLE

In the heating cycle operation, Fig. 1 shows how the fluid used as a heat source is pumped to the chiller where the temperature of this fluid is reduced. Assuming 50° F. well water is available, this water may be reduced to 42° F. or even 40° F. by the refrigerant in the chiller, and is returned to the disposal system at this temperature. It is obvious that the heat pump has picked up 8 to 10 B.t.u. for each pound of water circulated.

The refrigerant cycle of the heat pump acts as a bridge between the two fluid circuits. The heat picked up in the chiller is moved by the refrigerant to the condenser. While this process is taking place the mechanical heat of compression is also added to the refrigerant.

EFFICIENCY IS HIGH

It should be noted that the heat picked up in the chiller from the outside liquid source is *added* to the heat of compression. As a result the operating efficiency of the heat pump is three or four to one, with relation to the electricity expended to operate the compressor itself. It is for this reason heat pumps have been found to have reasonable operating costs, even in the north central regions.

Fig. 1 also shows how water in the closed indoor circuit flows from the condenser to the Flow-Temp change over valve and thence to the heat transfer equipment in the building. The water is returned by the circulating pump to the condenser.

CHANGE OVER VALVES

To eliminate a cumbersome system of hand valves, the special Flow-Temp change over valves make it possible to convert the system from heating to cooling by simply reversing the direction of the fluid circuits. This method is of particular value where cooling is required during the day and heating is needed in the evening.

Dependance upon manual valves would make this type of operation virtually impossible. With the Flow-Temp valves the system becomes completely automatic.

THE COOLING CYCLE

With the change over valves reversed for cooling, Fig. 2 shows how the liquid in the closed internal circuit passes through the heat pump to the chiller, rather than to the condenser. The water is reduced in temperature in the chiller, and then returned to the air handling equipment in the building.

As in the case of the heating cycle, heat removed in the chiller is transmitted by the refrigerant to the condenser, where it is picked up and carried to the disposal system.

FLEXIBLE CONNECTIONS DESIRABLE

The use of flexible rubber hose connections in the supply and return lines to the Flow-Temp unit is advisable to reduce the transmission of circulating pump noise through the system. Usually a hose about 16 in. in length, designed to resist 70 to 100 lbs. working pressure is adequate to reduce pump noise.

Fig. 3 shows how the hose should be securely strapped to the pipe connections on the unit.

Where the Flow-Temp forced circulating system is to supply both hot and cold water for year-round

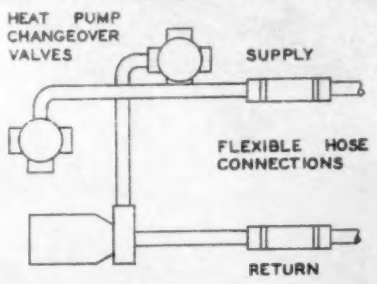

FIG. 3. Flexible hose connections. The hose should be securely strapped to the pipe connections on the unit.

INSULATION ADVISABLE

heating and air conditioning, it is very important that all lines in the closed system be adequately insulated. Otherwise, moisture condensation becomes a problem during the cooling cycle.

(To Be Continued)

Water-Saver Corp. Named Garman Rep. In East

ST. LOUIS—The Garman Co., Inc., manufacturer of Vapco water conditioning products, has announced the appointment of the Water-Saver Corp., 17 E. 42nd St., New York City, as Garman representative in the New York, New Jersey, and New England areas.

Vapco products are chemicals for the treatment of water in evaporative condensers, cooling towers, and other water cooling equipment, to retard the formation of scale, slime, algae, and other deposits.

LARKIN
MEANS PERFORMANCE

LARKIN TURRET HUMI-TEMP

The acid test of any product is performance. That's why you will find Larkin products used so widely for so many different refrigeration and air-conditioning applications. Users know from past experience that they can count on Larkin for top performance — day in, day out — year in, year out.

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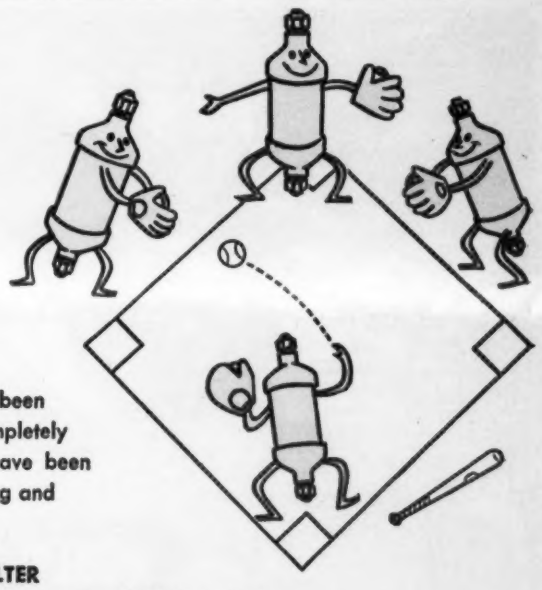

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THE ONE PROVED BY 3,000,000 IN SERVICE
Three million Mueller Brass Co. Deluxe Driers have been installed in commercial refrigeration systems. The completely satisfactory service they have given wherever they have been used is certain proof of the thoroughly effective cleaning and drying job they do.

2nd
THE ONE WITH THE EXCLUSIVE CONE SCREEN FILTER
The cone screen filter of Mueller Brass Co. Deluxe Driers is a patented filter-strainer unit filled with chemically cleaned pure wool. And the filter area has been increased 30%, providing a cleaning capacity approximately seven times that of the usual disc.

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THE HOME OF MUELLER BRASS CO. DELUXE DRIERS . . . the large, modern plant in Port Huron, Michigan. Mueller Brass Co. was one of the pioneers in the development of reliable refrigeration and air conditioning equipment. Complete laboratory, research and manufacturing facilities insure the production of valves, driers, fittings and copper tube bends and coils to the highest standards of quality.

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Commercial Refrigeration

The Grocer and Self-Serve Meats

Independent Markets Slowly Turn to Self-Service Equipment: Discussions at Convention Reveal Factors That Are Involved

WASHINGTON, D. C. — Independent grocers who have a meat department are slowly but surely changing it over to a self-service operation, but a lot of them are dragging their feet and still question the wisdom of "going all the way."

That was brought out in the panel discussion on "Profitable Meat Department Operation" held during the recent annual convention of the National Association of Retail Grocers (NARGUS) in the nation's capital.

At the close of a panel discussion, one of those attending asked that a vote be taken of the standing-room-only crowd, on whether their meat departments were "completely self-service," "semi-self-service," or "service meat department only."

From the count of this show of hands it was indicated that 70 to 80% of those members in attendance now operate their meat departments on a "semi-self-service" basis. Another 20% indicated that they had gone "completely self-service" while less than 10% were in the category of having a service meat department only.

The one big point of doubt in the mind of the independent grocer about a meat self-service department is that of whether or not he should go "all the way" in self-service, with no clerks immediately or readily available to handle special requests for special cuttings by the customers.

'Backward Step?'

One of the panelists, a meat manager for a small chain operated by an independent grocer, has been gradually converting to self-service. However, he said that he was taking what might be interpreted as something of a "backward step" in the next market he converts.

"We'll have self-service cases, but we'll have no backdrop behind them, and the meat department manager will be operating and cutting right behind the cases, and will be available to talk to any customer that comes by."

Why was he planning on doing that? someone from the floor asked.

"Because neither the customers nor the meat department manager like the idea of yelling at each other through a hole in the wall, was the answer.

But to Paul Reitz, whose S.V. Corp. in Du Bois, Pa. operates a chain of markets, some of which are completely self-service and others of which are not, this is entirely the wrong idea.

"Big advantage in self-service," Reitz pointed out, "is that it eliminates the bottlenecks in peak periods.

"If the customer has access to the butcher's time, we defeat our purpose of eliminating those bottlenecks.

"Secret of profit in self-service meats is to have the right kind of product flow through the processing setup. Speed and efficiency are all-important. If the flow is broken by interruptions for a lot of special orders, you are losing the chance to make that profit.

Cutting Down on Special Orders

"One way to cut down on a demand for special orders in a self-service meat department is to instruct the manager to take customers who make such requests out to the case and ask them what the customer wants that is different from that which is cut, packaged, and displayed in the self-service case."

One question from the floor that sparked considerable interest was the one which asked "How much dollar volume do you have to be doing to justify a change from a service meat department to self-service?"

Reitz offered the opinion that a $5,000 volume weekly in meats might mark a general point at which the change to self-service would be justified.

However, C. G. Bowes, director of the Meats Div. of NARGUS, said that there are a number of other factors involved other than the mere amount of volume being done in meats. Caliber of management and its ability to establish a self-service meat department are probably most important.

Also, he said, the matter of making a decision to change may depend a great deal on the kind of competition that a store is getting.

To be competitive with chains, the independent grocer who operates a self-service department must manage it shrewdly and know all of his costs, Bowes said.

Pricing on 'Per-Pound' Basis

Pricing on a "per-pound" basis may be one answer, but the independent market operator shouldn't neglect proper attention to equipment, personnel, and promotion. Self-service equipment permits the kind of "streamlining" of labor and other costs that can enable the independent to compete.

Reitz said that where it is necessary to offer "specials" to compete with big chain specials, the independent may have to "go up" slightly on a limited number of other items to make out all right.

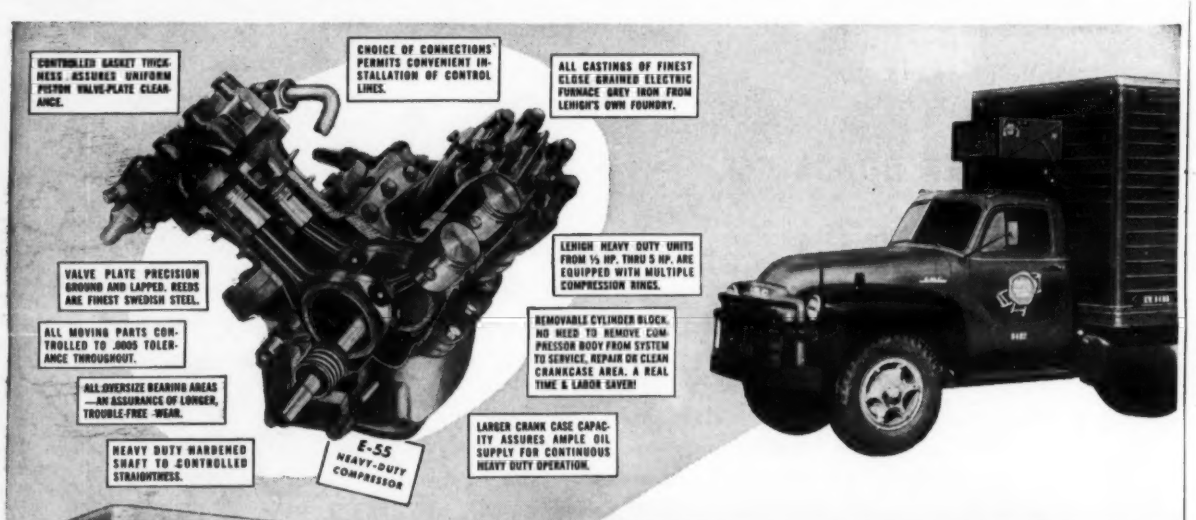
(Concluded on next page)

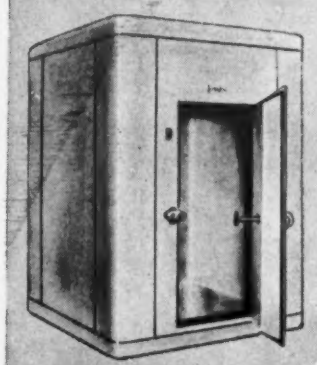
Low Temperature Freezer Installation Increases Meat Department Volume 10%

WASHINGTON, D. C.—A low temperature "freezer" storage box can add extra profits to a retail food store operation if used correctly, it was recounted by Clarence A. Williams, of Lukhard's Markets, Richmond, Va., during a panel discussion at the recent annual NARGUS convention here.

Lukhard's is a chain of four markets and a freezer storage box was installed in one of the markets to take care of the demands for "freezer food" plan customers which Lukhard's was supplying. However, the meat department manager also noticed that it enabled him to provide a greater variety of "special" items for his regular trade.

When meat department managers in other units found out the success that was being achieved, they clamored for similar equipment. Installation of the low temperature equipment in the stores has brought about an over-all increase of 10% in the meat department volume, it was stated.


CONTROLLED GASKET THICKNESS ASSURES UNIFORM PISTON VALVE-PLATE CLEARANCE.
CHOICE OF CONNECTIONS PERMITS CONVENIENT INSTALLATION OF CONTROL LINES.
ALL CASTINGS OF FINEST CLOSE GRAINED ELECTRIC FURNACE GREY IRON FROM LEHIGH'S OWN FOUNDRY.
VALVE PLATE PRECISION GROUND AND LAPPED. REEDS ARE FINEST SWEDISH STEEL.
LEHIGH HEAVY DUTY UNITS FROM ⅕ HP. THRU 5 HP. ARE EQUIPPED WITH MULTIPLE COMPRESSION RINGS.
ALL MOVING PARTS CONTROLLED TO .0005 TOLERANCE THROUGHOUT.
REMOVABLE CYLINDER BLOCK. NO NEED TO REMOVE COMPRESSOR BODY FROM SYSTEM TO SERVICE, REPAIR OR CLEAN CRANKCASE AREA. A REAL TIME & LABOR SAVER!
ALL OVERSIZE BEARING AREAS —AN ASSURANCE OF LONGER, TROUBLE-FREE WEAR.
LARGER CRANK CASE CAPACITY ASSURES AMPLE OIL SUPPLY FOR CONTINUOUS HEAVY DUTY OPERATION.
HEAVY DUTY HARDENED SHAFT TO CONTROLLED STRAIGHTNESS.
E-55 HEAVY-DUTY COMPRESSOR



BUILT FOR HEAVY DUTY SERVICE

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Whether they are powering market equipment or cooling a truck load of dairy products, Lehigh HEAVY DUTY units can be expected to deliver unfailing service under all conditions. That's because Lehigh has always believed in building units properly keyed to specific jobs — and rating them accurately and correctly. Lehigh "HEAVY DUTY" for example, means over-size bearing areas, larger crank case capacity, larger condensers, specially hardened shafts, etc. ★ These are some of the features that account for the greatly expanding use of Lehigh PACKAGED SYSTEMS for truck refrigeration — and the popularity of Lehigh HEAVY DUTY units in food display, preservation and freezing.

Illustration shows typical installation of Lehigh unit on truck engine — for refrigerated transportation.

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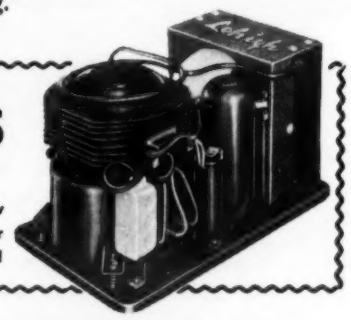
Lehigh HERMETICS
1/5 thru 1/2 H.P.
For service replacement and new equipment. Backed by a broad 5-Year Warranty. Packed with quality features!



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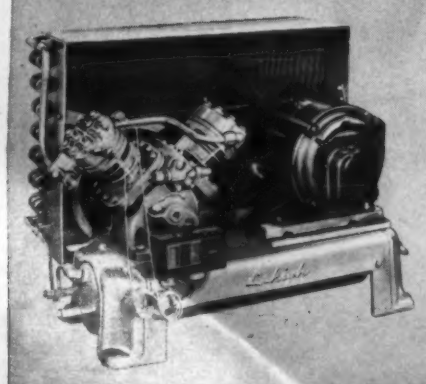

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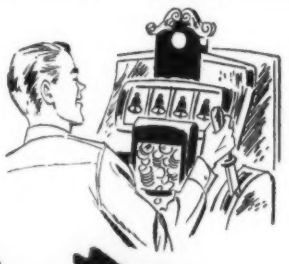
"some combinations can't be beat!"



Tenney UNIT COOLER

Tenney Unit Coolers, scientifically designed in modern style for safe comfort cooling, incorporate the correct ratio of prime to secondary surface with a staggered arrangement and rifled interior for highest efficiency. They have added capacity, assured defrost cycles, "sweat" elimination, variable directions of air flow, non-leak joints and a positive bond of facetized fin to tube. And—they're easy to install, easy to service.

It takes a combination—a well integrated Tenney team of top engineering and practical application of the lessons of experience—to produce the most efficient and durable refrigeration equipment. Take this Tenney Unit Cooler . . . years of research and experience in the refrigeration field have gone into its design and manufacture. This experience, combined with the most modern engineering methods, is your guarantee of complete satisfaction.

That's why, for either standard or special installations, it pays to "take it to Tenney."

SERVICEMEN CONTRACTORS, JOBBERS, ENGINEERS

Tenney brings you the advantages of advanced engineering and manufacturing facilities to handle any and every refrigeration problem, for the Tenney line is built to suit your needs. Outline your problem, and let us prove that a Tenney unit will solve it.

8474

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1090 SPRINGFIELD ROAD, UNION, N. J.
Plants: Union, N. J. and Baltimore, Md.

Engineers and Manufacturers of Refrigeration and Environmental Equipment

Self-Service Meat--

(Concluded from preceding page)

However, another grocer noted the fact that with self-service many meat items are becoming standardized, and are tending to become standardized in price too, like packaged dry groceries.

Bowes said that "shrinkage" is the highest item of expense in a meat department other than wages. He urged that the independent grocers make certain they have proper equipment, and take the right care of it, and also try to hold their inventory that will go over the weekend to no more than 10% of what they stocked for the weekend trade.

Cites 35% Gross Profit From Self-Serve Operation

The supervisor of an independent operating four markets in Richmond, Va., reported that with a gradual changeover of the meat departments to self-service, the stores had been able to reach as high a gross profit as 35% on meats.

Three of these markets are semi-self-service, and one is completely self-service (except for a fish counter).

Plenty of counter space is one of the answers; for example, in a market which measures overall 60 by 87 ft., there is 22 ft. of self-service case, and 22 ft. of service meat case, plus a fish case.

The largest market, all self-service, measures 60 by 100 ft. and has 70 ft. of display case.

The use of self-service cases, plus the employment of a single experienced meat supervisor for the four markets, were pointed out as some of the principal reasons for the high gross realized in these markets.

Another factor was the use of a low temperature "freezer" storage box, which permitted greater emphasis on high-profit "special" items, and reduction in losses by returning unsold specials to the freezer box.

Restaurant & Bar Equipment

Third Court Upholds Col-Flake Corp.'s Right to Ice Flake Machine Patents

CHICAGO—An attempt by Gerald M. Lees to regain his patent rights to the "Col-Flake" ice-making machine from the Akshun Mfg. Co. and Col-Flake Corp. here, to whom the patents were assigned in 1950, has failed, Col-Flake Corp. reports.

Three times, the company said, the courts have found the patent assignment contract between Lees and these companies to be valid and binding. Lees has claimed that the basic contract was fraudulent and has sued for the return of the patent applications together with $25,000 alleged damages.

A U. S. District Court decision against Lees in November, 1952 was appealed to the U. S. District Court of Appeals for the seventh circuit and was sustained on June 26, 1953. On March 15, 1954, the U. S. District Court here issued an order reading:

"Upon motion of defendants and with the contest of plaintiff, it is hereby ordered that the above entitled cause be, and it hereby is, dismissed with prejudice and without costs to any party."

Under the patent assignment contract, Lees assigned to Akshun his entire patent rights to the Col-Flake ice-making machine. It is a vertical type stationary cylinder with patented method of distributing water at the top and separating the ice from the water at the bottom and patented ice-removing blades.

Col-Flake Corp. is Akshun's exclusive licensee to manufacture and sell the unit in the United States, while the John Inglis Co., Ltd., holds the same license for Canada.

The opinion of the appeals court on Lees' suit to rescind the agreement said in part:

"The basis of the alleged right to rescind, as we read the complaint, are two: (1) plaintiff was fraudulently induced, by material misrepresentations of defendant Albright and others, to enter into the agreements; (2) defendant Akshun has committed a material breach of the contracts.

"A review of the record leads us to conclude that the first point was properly decided against plaintiff, that is to say, the findings of fact that no misrepresentation was practiced by defendant are supported by substantial evidence on the record considered as a whole.

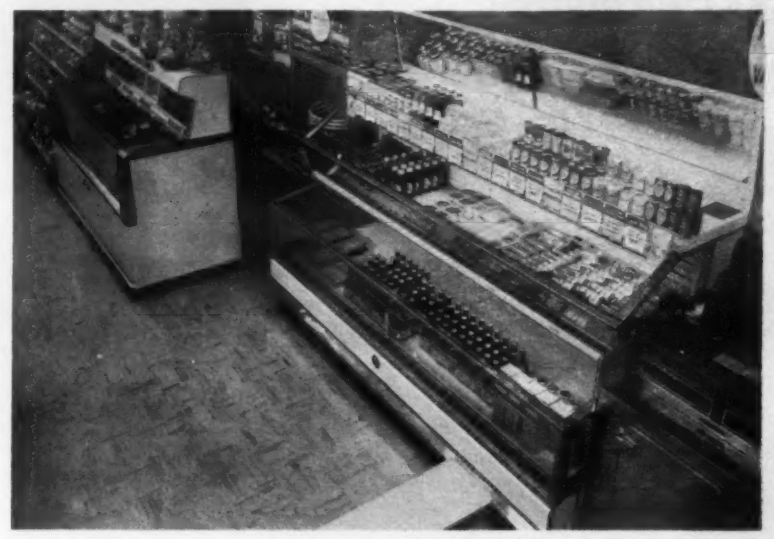
"Consequently, under Rule 52 (a) of the Federal Rules of Civil Procedure, we are bound by them. However, we find no findings with respect to the averments of material breach of the contracts.

"We find it necessary, therefore, to set aside the judgment and remand the cause for further proceedings in accord with the principles hereinafter set forth.

"Plaintiff is an engineer who has, for several years, devoted his efforts to the design of a flake ice-making machine. In the summer of 1950 he was residing in Seattle, Wash., where he had achieved relative success in the design and construction of a machine for one Branchflower.

"At that time he was approached by defendant E. J. Albright, who proposed that he come to Chicago and design machines for manufacture by the Albright Co.

"Plaintiff asserted at trial, and maintains here, that it was at this stage of the negotiations that defendants first practiced deceit by falsely representing to him that they possessed a large number of 'orders' which awaited his talents and that they had at their disposal more than ample manufacturing facilities for large scale production. But defendants' contradictory evidence adequately supports the trial court's finding to the contrary."



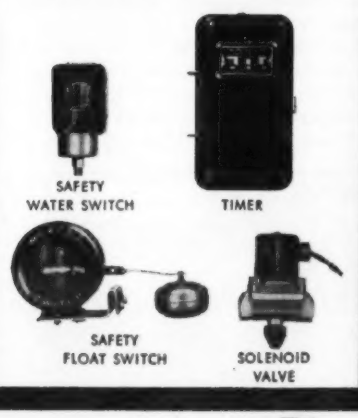
PARTY FOODS are being merchandised with good results in this self-service refrigerated fixture in the newly-opened Gallaher drugstore in Dayton, Ohio. The upper shelves hold a wide variety of cheeses and other party delicacies, while the lower section is devoted to beverages. The case is strategically located at a good traffic spot near the front of the store.

Pay Up In Comfort

DALLAS—County Commissioners have agreed to buy an air conditioning unit for the county tax branch office at Garland. They accepted the bid of Oak Cliff Electric Co., 1580 Stemmons.

Have automatic water defrost at its BEST...

with the new
RECOLD AUTOMATIC CONTROL PACKAGE



Added to the established superiority of Recold Water Defrosting, now you can easily have the convenience . . . the satisfaction of entirely automatic defrost control. The new Recold Automatic Control "Package" offers a complete, simple, easy-to-install accessory group that gives you safe, positive acting, fully automatic defrosting of Recold Water Defrost Coils. Investigate the Recold Automatic Control "Package" for your present installation or for new applications.

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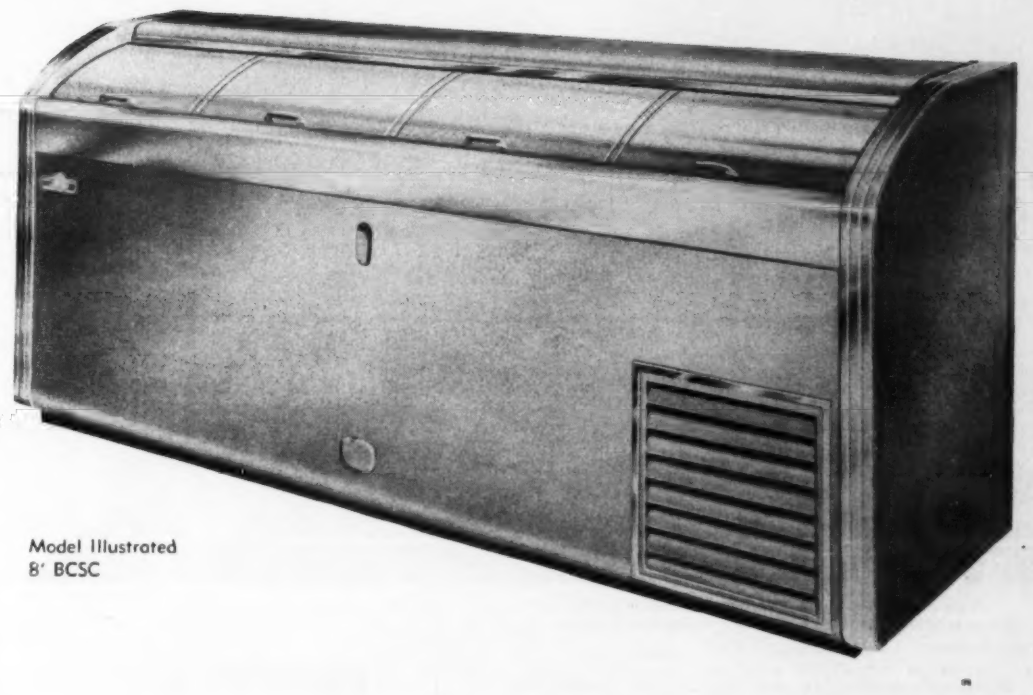

Model Illustrated
8' BCSC

LEADS IN CAPACITY — GIANT CAPACITY!! Nolin 6 foot self-contained model holds over 32 cases of 12 oz. bottles—largest capacity known.

LEADS IN QUALITY — Nothing but the FINEST MATERIAL used, Copper, Aluminum, Stainless Steel, Cork, and Cypress. A traditional NOLIN quality case built for life time service.

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LOWEST IN PRICE — A NEW LOW PRICE WILL BE SENT TO YOU UPON REQUEST!!

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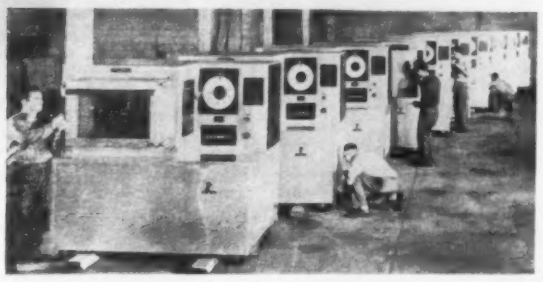


TEN stratosphere chambers in last phases of construction prior to being shipped to Gentile Air Force Base.

21 Stratosphere Chambers To Allow More Economical Tests of Air Force Instruments

UNION, N. J. — Twenty-one stratosphere chambers—said to be the largest number ever contracted for at one time—were being shipped recently from Tenney Engineering's plant here.

Ordered by the Gentile Air Force Base, the chambers will be assigned to domestic and overseas Air Force depots for testing and calibrating aircraft instruments in maintenance and repair operations.

Their assignment to these bases will enable "on location" testing and calibration and eliminate transportation of parts to and from major bases for these operations. This disposition of these chambers will cut costs, speed repair operations, and reduce spare parts stocks, according to Tenny Engineering.

"The test chambers have a temperature range from -75 to 75° C. and an altitude range from -1000 to 80,000 ft.," the company explained. "Each chamber is a self-contained unit mounted on casters, and plugs into a 30-amp 230-volt circuit.

"The chambers were especially constructed by Tenney to meet unusually tight space limitations which restricted over-all dimensions to 4 ft. by 6 ft. by 7 ft. Into this space had to be fitted the chamber work-space (15 in. by 18 in. by 30 in.), refrigeration equipment, insulation, vacuum pump, instruments, and other accessories.

"In meeting these space limitations, Tenney finalized the development of a new rotary compressor which, with a 3-hp. drive motor, accomplishes work which otherwise would require either a 30-ton-capacity reciprocating compressor driven by a 15 to 20-hp. motor, or an extra stage of compression requiring two smaller reciprocating compressors.

"The rotary acts as a booster in a 'Freon-22,' two-stage system. In very low-temperature operation it receives refrigerant from the cooling coil of the chamber at 27.5 in. Hg, compresses it to 5 in. Hg and discharges to the high stage where the refrigerant is further compressed to 155 p.s.i.g. and discharged to a condenser and to the cooling coils.

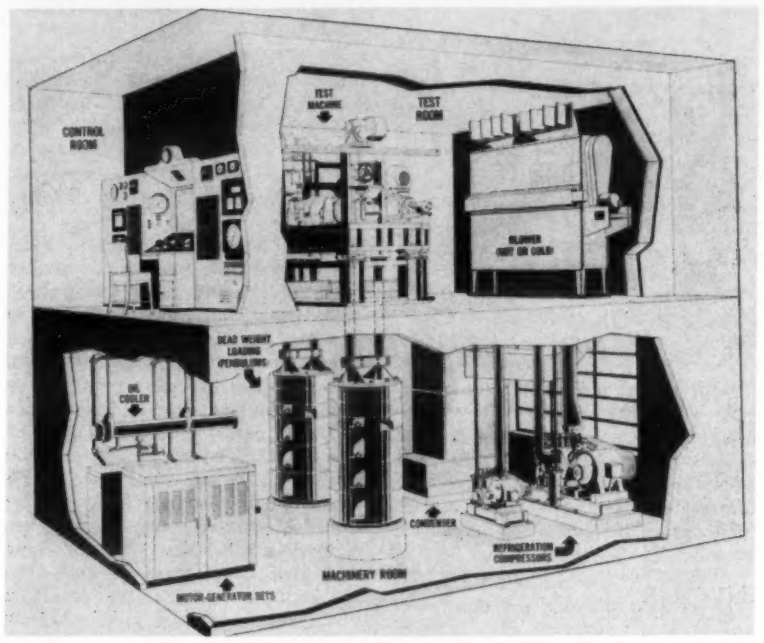
"Each chamber has a multi-pane thermopane viewing window enabling observation of the complete illuminated work space. Auxiliary equipment for operating equipment on test includes eight air or fluid connections, 24 electrical terminals and a 2000-r.p.m. shaft.

"Chambers are controlled by electronic potentiometer indicating controllers. Temperature is regulated within ± 1 C."

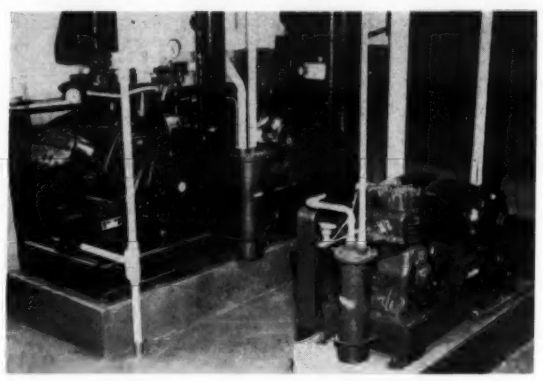
Data Given on Valves For Instrument Piping

SOMERVILLE, Mass. — Jerguson Gage & Valve Co. here has recently issued a bulletin on valves for instrument piping and general use. The bulletin gives features, application information, and specifications on Jerguson valves. It also contains illustrations and drawings showing how these valves combine unions, nipples, reducers, elbows, tees, valve, and drain valve into one unit.

INDUSTRIAL application



CUTAWAY drawing shows refrigeration equipment in American Brake Shoe Co.'s new bearing laboratory.



CLOSE UP view of the two Worthington compressors which will help researchers solve the railroad freight car "hot box" problem.

Refrigeration Aids Study To End Problem Of 'Hot Boxes' on Railroad Freight Cars

MAHWAH, N. J.—At American Brake Shoe Co.'s new bearing laboratory in its research center here, a Worthington refrigeration system provides and maintains correct temperatures for studying the performance of journal bearings in railroad use, and various lubricating methods to eliminate the so-called "hot box" problem.

A Worthington refrigeration compressor driven by a 40-hp. motor is used for obtaining large temperature drops in the test room and for holding it at very low temperatures.

A smaller Worthington compressor, driven by a 5-hp. motor, is used for minor adjustments in temperature, and for holding at values slightly below outside room temperature.

Any temperature setting made is automatically maintained in the test room through controls on the refrigeration system and the heating system. The controls, in turn, depend on information supplied by thermocouples located throughout the test room.

All of the equipment in the test room and the machinery room is controlled at the operator's panel in a separate control room where the operator looks directly into the test room through a window.

A system of weights can exert simulated loads up to 20,000 lbs. per journal. A hydraulic loading arrangement permits applying as much as 40,000 lbs. to the journal bearing.

The increase in number of hot boxes in freight car service in recent years demands a satisfactory solution. American Brake Shoe's complete new laboratory, employing precise temperature control, expects to achieve that objective.

Magnesium Foundry Ventilating System . . .

Sixty-two Allen-Bradley Combination Starters which control the ventilating system of a magnesium foundry.

Wherever reliability is essential, you will usually find Allen-Bradley controls . . .

Why?

Allen-Bradley starters are so popular because they do not require regular attention; they are trouble free. Only ONE moving part. No pivots, pins, or bearings to corrode or stick . . . no jumpers to break. You install them . . . and forget them!

No contact maintenance . . . Allen-Bradley cadmium silver alloy, double break contacts never need cleaning, filing, or dressing.

Dependable overload relays . . . Allen-Bradley thermal relays are dependable and remain accurate in their operation, even after many years of service.

The Allen-Bradley trademark stands for millions of trouble free operations.

Allen-Bradley Co., 1313 S. First St., Milwaukee 4, Wis.

Allen-Bradley
Solenoid Motor Controls
QUALITY MOTOR CONTROLS FOR HEATING, VENTILATING, AIR-CONDITIONING, & REFRIGERATION INDUSTRIES

A-B Quality

operated by . . .

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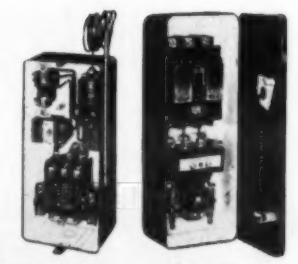
Trouble Free
Motor Controls



Special refrigeration control panel

Combination Starter

Redmond
MICROMOTORS
One of largest stocks in the world!
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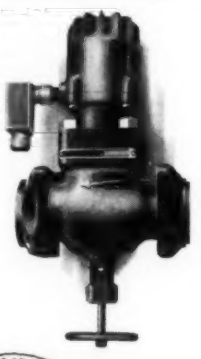


FRICK Electric Control Valves

Are preferred for ammonia and Freon suction and liquid lines, unloader service, etc. Withstand 250 lb. pressure. Sizes 1" to 2½". In highly successful use 20 years. See your Frick Branch or Distributor, or write to

DEPENDABLE REFRIGERATION SINCE 1882
FRICK CO.
WAYNESBORO PENNA. U.S.A.

LENGTHS of Thermaflex are measured and square cut to size with ordinary pocket knife. Cut is made midway between two of the wire coils, cutting straight down through the tubing until the cut meets on either side of the reinforcing wires. Galvanized spring steel wire is then clipped with cutters.

CUT LENGTH of Thermaflex, with adhesive applied to inside diameter, is slid over the metallic outlet. The adhesive dries rapidly, forming a positive airtight connection. No special fittings or taping of joints is required.

Flexible Ducting Developed for High and Low Pressure Air Conditioning Systems

GUILFORD, Conn.—A new type of branch ducting for high and low pressure air conditioning systems has been introduced by Flexible Tubing Corp. here.

Named "Thermaflex A," the flexible, lightweight ducting combines low air friction loss with ease of installation, the company says.

Basic construction of the tubing is a continuous galvanized spring steel helix covered with a permanently bonded three-ply laminate of Fiberglas fabric sandwiched between two layers of aluminum sheeting.

The aluminum is bonded to the Fiberglas with a specially-developed resinous elastomeric compound which also binds the aluminum to the wire helix.

Available in 12-foot lengths and diameters of 2 to 10 in., the ducting is flameproof and will withstand a hydrostatic pressure of 59 p.s.i. and will function within a temperature range of 0 to 250° F.

Under normal installation conditions, all that is required is a length of Thermaflex, a pocket knife, diagonal side cutters, adhesive, and a brush. The tubing is so light that a length of it can easily be carried up a ladder and cut to fit on the spot.

In actual installations, the required lengths are measured while on the ladder. The proper size is then square cut with the pocket knife by cutting midway between two of the wire coils straight down through the tube until the cut meets on either side of the reinforcing wire. The galvanized spring steel wire is then clipped with the side cutters.

A synthetic rubber base adhesive, such as Minnesota Mining and Mfg. Co.'s EC-800, is then brushed inside the cut end of the ducting to a depth of about 3 in. The Thermaflex is then slid over the metallic outlet. The adhesive dries in a few minutes to form a positive airtight connection.

No special fittings are required and the flexibility of Thermaflex does away with the fabrication of elbows and joints and the possibility of leakage at the joint, the company claims.

The layout need not be as precise as with rigid ducting for Thermaflex will compensate for fractional differences in measuring as well as misalignment between the main line and soundbox or diffuser, it added.

No taping is required if the adhesive is used. If taping is preferred, a pressure sensitive tape, such as 3M (472) or Polyken vinyl-backed tape may be substituted.

When necessary, Thermaflex may be snaked around structural interferences such as water pipes, cross connectors, or ceiling supports to connect to the soundbox or diffuser.

Under development for three years, Thermaflex was originally shown at the refrigeration and Air Conditioning Exposition last November, but before marketing was begun experimental field installation uncovered minor difficulties.

After the exposition, reports from the company's technical representatives showed that porosity developed in their samples after repeated flexing in customer demonstrations.

The field installations indicated no such trouble. Apparently the ducting would break down when the number of flexes far exceeded normal installation needs.

It was decided to recall the ducting, rather than simply change demonstration samples periodically. This was in keeping with company policy of not marketing a product that did not far exceed normal standards. Production was halted and the tube returned to the laboratory for further development.

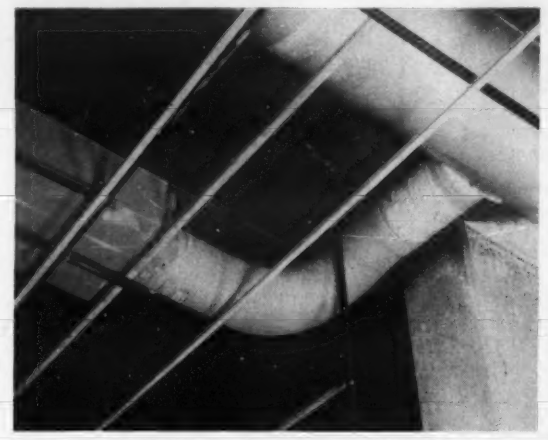
Conversations with sheeting producers convinced the company that pinholes were inherent in aluminum sheeting and that it would be necessary to develop an internal seal to close the pores.

It was decided to use a continuous film of resinous coating that would be inert, flameproof, and have excellent aging characteristics. The problem of insuring that the film would not suffer from plasticizer migration was solved by the development of a permanent-type plasticizer.

Further testing proved that the film improved flexing characteristics of the ducting and that it sealed the inherent pinholes. Also, it prevented the enlarging of any minute pores that might develop in the other skin, providing a completely sealed duct.

As the development progressed it became apparent that the weight of the metal sheeting was critical to the porosity of the tube. Contrary to early thinking, it was found that if the sheeting were too heavy it would develop pinholes when flexed and that too light a gauge deprived the tube of strength. A relatively simple project produced sheeting of the correct gauge to afford maximum body without risking porosity.

At this point, Thermaflex was again released for trial field installations. Reports from more than a half-dozen of these indicate the tubing is now ready for commercial applications.



PICTURE of one of the earliest Thermaflex installations shows how the new flexible ducting can be used to connect two rigid metallic outlets. The ducting is cut to length and cemented over the outlets. The flexibility of Thermaflex allows it to make all the necessary bends and automatically compensates for any misalignment of the outlets.

Penn Plans Building for Engineering, Research

GOSHEN, Ind.—Penn Controls, Inc. has announced plans for a new engineering and research building to be erected on the site of the present main office and plant here.

The building will be constructed by the Austin Co., nationally-known designer and builder. The Austin Co. built Penn's main plant in Goshen and several additions to that plant. Plans call for construction to begin in July.

The new building, ultramodern in appearance, will house engineering offices, library, drafting room, laboratory, and model shop. It will be of steel and concrete construction incorporating the latest in exterior finish, porcelainized steel panels with continuous horizontal window areas of Thermopane glass.

Face brick will be used to blend the appearance with the main plant building which was completed in 1937.

The two-story building will be completely air conditioned, with fluorescent lighting throughout. The entrance and lobby will be walnut panelled and the entire office area will have asphalt tile floors.

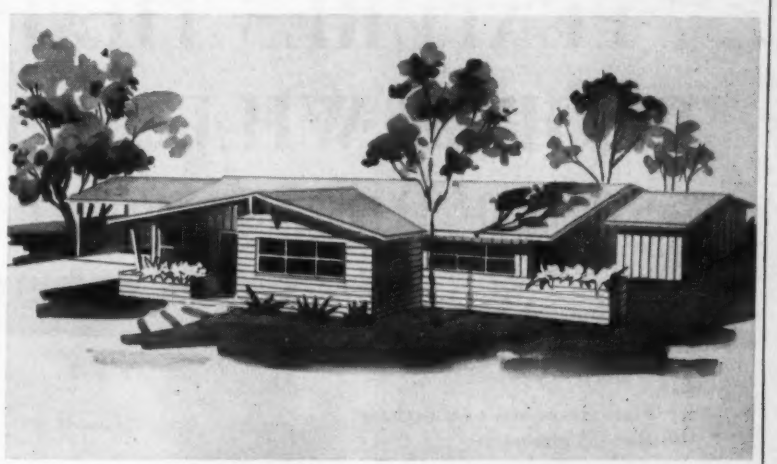
The laboratory will provide new facilities for more advanced development in many types of automatic controls including advanced electronic research.

Advertisement

usAIRco Unit Beats Heat Against Odds!

Home Air Conditioner Cools to 79° Against 97° Outside Temperature as 250 pass through Home at Austin, Texas "Air-Conditioned Village"

AUSTIN, Texas—At the opening of the Austin, Texas Experimental Air Conditioned Village, even against such odds as a 97 degree outside temperature and about 250 people passing through the house during a 3-hour stretch, the usAIRco test home maintained a comfortable 79-80 degrees indoors.



Attracting nation-wide publicity the experimental Air Conditioned Village, sponsored by the N.A.H.B., opened for a special trade showing on June 2. More than 700 representatives of air conditioning manufacturers, suppliers, equipment concerns and other tradespeople inspected the 22 homes, each equipped by a separate manufacturer. During the three hottest hours of the day, 2 to 5 p.m., the official outside temperature recorded at 97 degrees.

Each of the Austin Village homes is equipped with year 'round air conditioning. Some have automatic measuring instruments to keep records on air conditioning and temperatures for a period of one year.

The Home Unit which air conditions the Austin Village home is manufactured by the United States Air Conditioning Corporation of Minneapolis, Minn., Model 7720, 2 h.p. upright packaged air conditioner with compressor and motor, water cooled condenser, direct expansion cooling coil, air filter and centrifugal fan for air circulation. A cooling tower recirculates the condenser water.

Same Unit Heats In Winter

An efficient cooling unit, the usAIRco packaged air conditioner also provides heat in winter. A 3-row water coil is used for heating, with hot water being supplied by a boiler.

usAIRco's Model 7720 is extremely compact in size: 62⅞" high, 39" wide, 21⅛" deep. It is located in a closet in the center of the house.

This central location provides for short runs of duct work to all rooms. Design includes overhead duct system with ceiling diffusers to obtain better air distribution and control than with high inside wall air outlets. Ducts originate from a common discharge plenum, extend through the attic, then lead out to the various rooms with ceiling diffusers. A single return duct is used.

Minneapolis Honeywell Electronic Moduflow package with outdoor thermostat, Electronic Clock Thermostat and electronic relay, modulates temperature control of the entire system. Moduflow control system prepares equipment in advance to take care of rapid changes in outdoor temperatures.

Home's Design Conducive To Air Conditioning

This house was designed for air conditioning and built with the following features to minimize the cooling load:

1. Plastered walls with rockwool gypsum insulation.
2. Canvas awning shading on the exterior.
3. Small perimeter house with low outside wall area.
4. Solid west wall shaded by carport.
5. Roof overhang on south side.
6. 1,258 square feet in size, the usAIRconditioned home has a built-up roof and slab floor with vapor barrier.

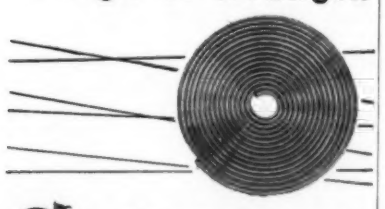
Village To Be Watched Closely In Future Months

The Air Conditioned Village of Austin, Texas has gained national fame since it's a project in which the N.A.H.B. is participating. The N.A.H.B. plans to study the effects of air conditioning smaller homes on family living, as well as check the size and type of equipment to be used in such homes in a key location.

The study will continue for one year under occupancy conditions. Special attention will be given to the effect of air conditioning on the health and welfare of children. Installation and operating costs will also be carefully studied by N.A.H.B.

For further details write the United States Air Conditioning Corporation, Minneapolis 14, Minn.

VIKING
a sign of strength



Viking copper tube is annealed with precision uniformity insuring speedy, efficient, trouble-free fabrication and strength.

Triple-sealed Viking tube remains extremely dry and absolutely free of dirt. The seal is made to pass through any opening large enough for the tube itself.

Viking refrigeration tubing is soft and pliable—can be formed, flared and expanded quickly without danger of fracturing and splitting.

VIKING
copper tube co.
CLEVELAND 10, OHIO
PRECISION DRAWN SEAMLESS COPPER AND ALUMINUM TUBING

MARSH
Instruments
THE SERVICEMAN LINE of Testing Gauges, Testing Thermometers, Timers, etc.
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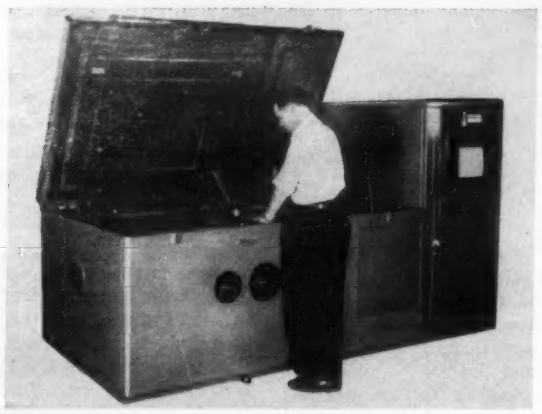
Dept. D, Skokie, Ill.

What's New

When requesting further information on new products, please use "Information Center" form.



Cabinet Drops Temperature from 600° to -100° In 2 Hrs.

——KEY NO. D-740——

HOLLAND, Mich.—A new industrial test chamber which reportedly can drop temperatures from 600° F. to -100° F. in less than two hours is now being produced by Conrad, Inc. here.

The chamber was designed to simulate the temperature range of high altitude sonic flight to test the stamina and performance of parts, actuators, and jet aircraft devices.

The unit can also be used for treatment or tempering of tool or special steels; in chemical, or petroleum or pharmaceutical analysis, and for many other purposes.

"This test chamber takes the place of the two (heating and cooling) units previously needed for this type of testing," the company said.

"It reduces the amount of equipment necessary to test in the 600 to -100 range, and permits a continuous test under controlled conditions without movement of the material or device involved.

"Temperatures can be held within 2° of any set point in the chamber's range, and can be increased or decreased within any range, and at any desired rate through automatic, recording controls. Controls can be provided for recurrent cycles.

"Top view opening is provided for observation of parts or mechanisms under test, and powered devices can be operated in the chest, with controls and wires passing through front and side access ports.

"The fast drawdown of temperature is produced by the forced venting of the heated air, and at 200° F. temperature the Conrad double cascade cooling unit takes over. Cooling from ambient temperature to -100° is accomplished in about one hour.

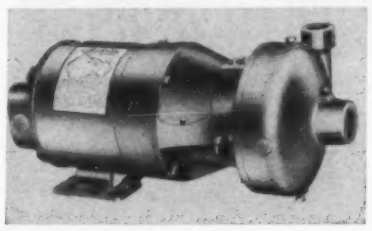
"'Freon-13' and 'Freon-22' are used in the Conrad system, so there is no safety limitation on the location of the test chamber."

Booster Ups Pressure From City Water Main

——KEY NO. D-741——

MORTON GROVE, Ill.—A pressure booster to increase pressure from water mains has been introduced by Bell & Gossett Co. here.

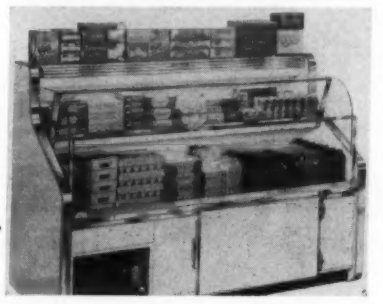
Available in many sizes, the pressure booster is a centrifugal pump of corrosion-resistant bronze construction. It is extremely small and compact and utilizes a specially designed and constructed



sleeve bearing motor for extra quiet operation.

The pump can be installed directly in the lead-in pipe from the water main and is operated automatically by a switch which detects changes in water pressure. When the city water pressure drops below a minimum setting, the switch starts the pump to increase the water pressure.

Sizes range from the small residence pressure booster to those required for large multi-story apartments or hotels with capacities up to 1,200 g.p.m. and motors up to 75 hp.



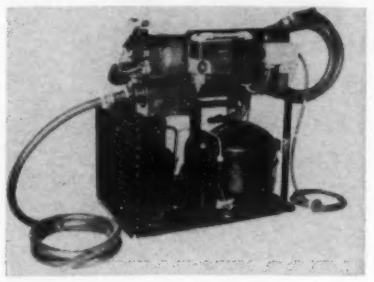
Double-Duty Case Has 2 Refrigerated Shelves

——KEY NO. D-742——

CINCINNATI—A new self-contained double duty case for dairy products, vegetables, and meats has been introduced by the C. Schmidt Co. here.

The case has two refrigerated shelves with 18 sq. ft. of usable surface and the storage compartment has 11 cu. ft. capacity.

The case is 76¼ in. long, 34⅞ in. wide, and 53⅜ in. high. Finish is porcelain enamel with stainless steel trim. The case has been designated the model DDO-6A-SC.



Liquid Cooler Holds Temperatures to ½°

——KEY NO. D-743——

CHICAGO—A new liquid cooler that will maintain temperatures of plus or minus ½° F. and will circulate 410 gals. per hour at a 2-ft. head has been introduced by Remcor Products Co. here.

Available in either a stationary or portable model, the "Force-Flow" cooler is a complete assembly with condensing unit, heat exchanger, liquid pump, controls, and flexible hoses for distribution, the company says. It need only be plugged in to operate.

The medium to be cooled and circulated may be water, oil, chemicals, or acids because the interior construction of the heat exchanger lines and liquid pump are impervious to destructive action of acids and liquids, the company claims.

The cooler is made in standard sizes of ¼, ⅓, and ½ hp. and can be made up into large units on special order. It can also be provided for special applications with two, three, four, or more separate liquid cooling circuits, each with its own pump, each maintaining its own specified temperature, and all operating from one condensing unit.

The company says the cooler is light in weight, small in size, and reasonably priced.

ALL-ELECTRIC, YEAR 'ROUND

air conditioning

...7 FEATURES THAT PEOPLE WILL BUY

Get Them ALL in the Westinghouse Heat Pump

1. Heating and cooling from a single, all-electric unit
2. Waterless operation
3. Flameless—uses no fuel but air and electricity
4. No chimneys, flues or fuel storage required
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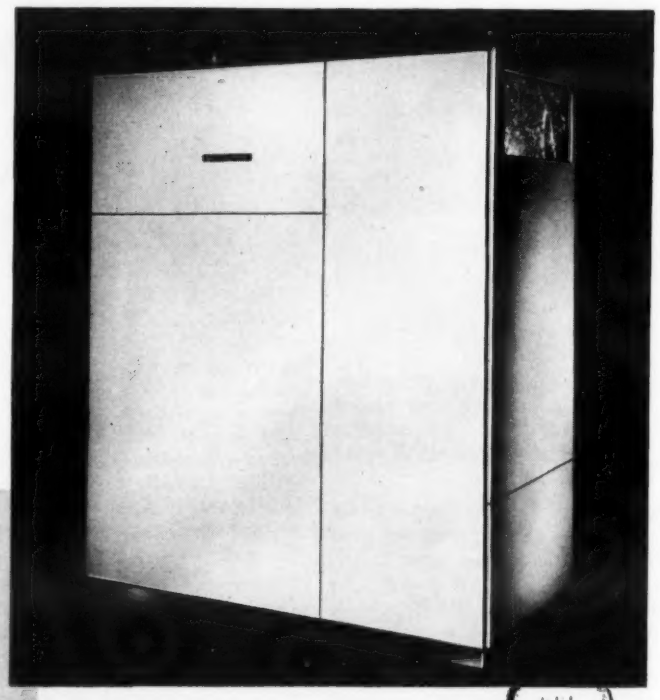
6. Fully automatic
7. Economical operation the year 'round



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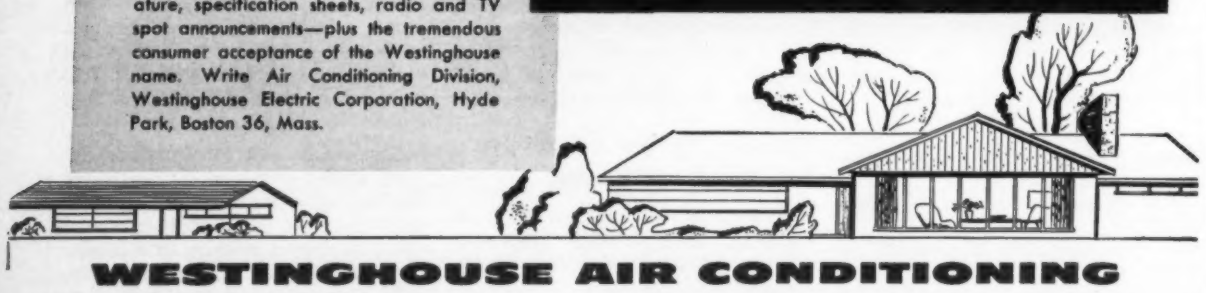

WESTINGHOUSE AIR CONDITIONING

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J-80390

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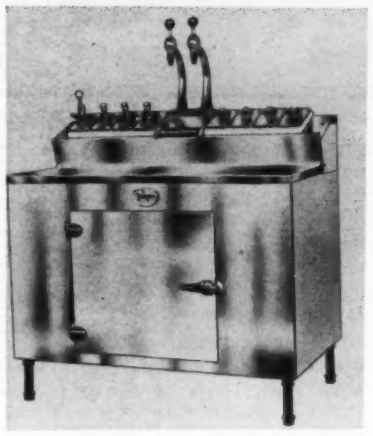
What's New (Con't)

Sweden Mix Storage Fountain Has 40-Gal. Capacity



——KEY NO. D-744——

SEATTLE — A specially-developed mix storage fountain unit for use with the firm's soft-serve freezers and "Firgidmixer" milk shake machines has been announced by Sweden Freezer Mfg. Co. here.

The new unit, called the "Sweden Mix Storage Fountain," combines a spacious refrigerated mix storage compartment, topping and syrup rail, and ample work space into one compact and attractive unit, the company said.

"The Sweden Mix Storage Fountain is designed to be an integral part of the Sweden Automatic Fountain System which provides the operator with a complete package for handling all his ice cream needs," it was pointed out.

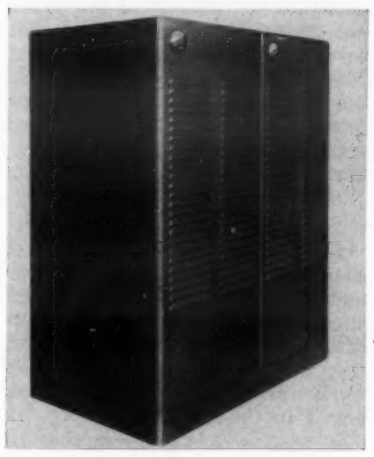
"Set between the soft ice cream freezer and milk shake machine, this unit gives the operator a ready 40-gal. mix supply.

"The interior is completely clear, with no space taken up by blowers or other mechanical equipment. A front opening door provides easy access to the interior and permits easy cleaning.

"The topping and syrup rail consists of four crushed fruit jars, water and soda draft arms, and four syrup pumps, including a lever handle chocolate pump. The top of the unit is completely clear of any lids, hinges, or projections to provide a convenient work area for preparing a number of fountain dishes at one time."

The unit is described as ruggedly build, completely cork insulated, and covered top and front with heavy gauge polished stainless steel for durability, attractive appearance, and ease of cleaning.

A ½-hp. air-cooled condensing unit is required for operation. A hermetic condensing unit and carbonator are available singly or in combination as optional equipment for installation in a matching stainless steel stand on which the company's table model automatic continuous freezer or Frigidmixer may be installed.



Year-Round Conditioner Pre-Wired, Pre-Assembled

——KEY NO. D-745——

INDIANAPOLIS—A new year-round air conditioning package named "Clima-Twins" was recently announced at the national sales meeting of Peerless Furnace & Foundry, Inc. of Indianapolis and Round Oak Co., Inc. of Dowagiac, Mich.

The twin units, which may be installed separately, are pre-wired and pre-assembled.

"The individual units provide ease of installation and go through ordinary doorways and down basement stairs," it was stated.

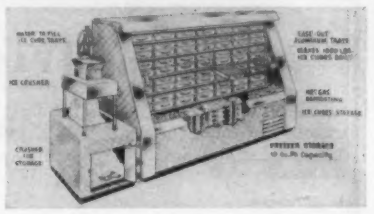
"A new, exclusive automatic changeover to heating and cooling has been provided. Dual thermostats, mounted on an attractive panel, give 'upstairs' control.

"Twin shutters on each unit are actuated by the air from the blowers giving automatic changeover without additional damper motors or controls.

"The heating unit is designed for oil or all types of gas. The unit may be installed for oil and changed over to gas-fired.

"The cooling system is water cooled and carries a five-year warranty on all parts that come into contact with the refrigerant. The system is completely hermetically-sealed and factory-charged; no field-charging is necessary.

"Two models are available, 2-ton and 3-ton capacity."



4-Bros. Ice Cube Maker Holds 72 Aluminum Trays

——KEY NO. D-746——

PHILADELPHIA—An ice cube maker that has the appearance of a freezer display case and holds 72 ease-out aluminum ice cube trays which make 5 lbs. of cubes each has been introduced by the 4-Brothers Refrigeration Mfg. Co. here.

Called the "Giant Ice King," the case has a capacity of 1,000 lbs. of cubes daily. A water connection with spigot at outside rear and hose attachment allows for quick refilling of trays. Storage space and container for cubes are part of the case.

The case features hot-gas defrost, No. 430 stainless steel with 4 in. of insulation, and a Tecumseh hermetic unit covered by a five-year warranty.

Classified as the model 52-6SC, it is 6 ft. long, 52 in. high, and 30 in. deep. Other sizes up to 10 ft. long are available. An ice crusher is a separate companion unit with storage space for crushed ice.

A similar case without water attachment and ice crusher with six upright compartments is being produced as a freezer under the label 53-6SC by 4-Brothers.

Moisture Conditioner Both Wets, Dries Air

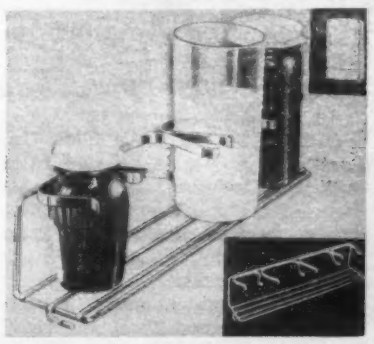
——KEY NO. D-747——

CHICAGO—A "moisture conditioner" that is claimed to be the only device on the market that can remove moisture from the air and also replace it in overly dry air is being marketed by Admiral Corp. here.

When on "dehumidify," the moisture conditioner can remove up to 3 gals. of water from the air in a room every 24 hours. A flick of the switch to "humidify" reverses the process, putting moisture back into the air at the rate of about 2 gals. every 24 hours.

Completely rustproof, the unit is produced in aluminum and high impact plastic cabinet. It stands 23½ in. high with a circumference of 15¾ in.

The unit is also available as a straight dehumidifier.



'Spill-No-More' Rack Holds Jars, Glasses Upright

——KEY NO. D-748——

CHICAGO — A "Spill-No-More" refrigerator rack to hold small jars or glasses upright in the refrigerator has been announced by the Dover Products Co. here.

Thirteen inches long, the rack has clamps to hold four containers of the size of an ordinary drinking glass. It is chrome plated and hooks securely onto a wire refrigerator shelf.

Carrying a list price of $1.29 each, the racks are packed two dozen to a carton. They weigh 5 lbs. per dozen. A four-color descriptive card is attached to each rack.

USE THE COUPON!
For "easy-to-get" product information . . .
Use Key No. for fastest service.

Manufacturer of Full Line Air Conditioning Equipment

has a number of metropolitan territories available to high-type manufacturers' agents with no competing lines. Line includes Compressors, Chillers, Coils, Condensers, Towers, etc. Sold direct to Contractors. Write Schnacke, Inc., Evansville 7, Indiana.

Key to WATER COOLER - ICE MAKER SALES . . .

FILTRINE "Taste-Master" PURIFIER

Stop service calls . . . keep out rust and sludge . . . open new doors to sales acceptance!—with coolers, ice-makers, sell "Taste-Master"!—checks chlorine, traps sediment; promotes service-free satisfaction with all water processing appliances. Write—

Filtrine MANUFACTURING CO. BROOKLYN 38 • N. Y.
"Water Coolers and Filters for 40 Years"

"Factory-prepared literature opens up leads for me," says Dan McKenzie, Biscayne Air Conditioning Co., Miami.

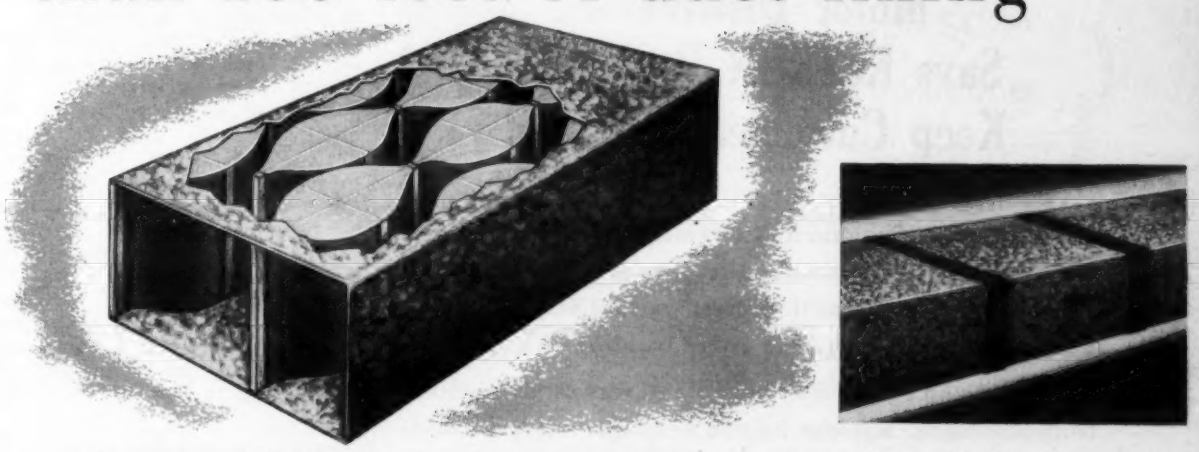
TO GET ON THE MOST PROFITABLE FACTORY-DEALER TEAM IN THE BUSINESS, TIE UP WITH

TYPHOON AIR CONDITIONING 794 Union Street, Brooklyn 15, N. Y.

• COMMERCIAL AIR CONDITIONERS, 2 TO 25 TONS
• RESIDENTIAL YEAR-ROUND UNITS FOR GAS OR OIL
• ROOM AIR CONDITIONERS, ⅓, ½, ¾, 1 H.P.
• PACKAGED HEAT PUMPS, RESIDENTIAL & COMMERCIAL

NEW Aircoustat BRINGS PACKAGED SILENCING TO AIR CONDITIONING SYSTEMS . . . . .

One 7 foot unit more effective than 100 feet of duct lining



The concern which brought packaged silencing to the aircraft industry, taming the loudest noises on earth — jet engine testing — has applied engineering principles of sound control to the air conditioning field. Result: the amazing ISC AIRCOUSTAT . . . a packaged unit for quieting fan and air noise in air conditioning systems.

Compact, economical AIRCOUSTATS produce amazing results. One 7 *foot* unit, for example, reduces the noise level below what *100 feet* of old fashioned duct lining could accomplish, and pressure drop is *less* than if the entire duct had been lined. Acoustically engineered AIRCOUSTATS assure correct silencing of conditioned areas . . . eliminate hit or miss efforts at noise control.

Constructed of galvanized steel or aluminum, AIRCOUSTATS are incorporated as part of the duct work . . . joined by flexible connections . . . require no special tools for installing. They are available in 11 standard sizes for use with all styles and sizes of ducts, and in 3 types to meet any desired conditions.

Selection is no problem with AIRCOUSTAT. If it fits geometrically, it fits acoustically.

Write TODAY for complete information.

SILENCE SERVICE Industrial Sound Control Inc.
45 Granby Street, Hartford 12, Conn.

Industrial Sound Control
45 Granby Street, Hartford 12, Conn.
Please send me more information on AIRCOUSTATS:

Name .....

Address .....

City .....Zone .....State .....

Seattle Firm Appointed Unarco Representative

CHICAGO—E. H. Langdon Co., Seattle, has been appointed sales representative for "Unarco" heating and air conditioning units, it was announced recently by Edwin E. Hokin, Union Asbestos & Rubber Co. president.

The Langdon company, a partnership, is headed by E. H. "Ned" Langdon, E. P. Langdon, R. L. Langdon, and T. C. Langdon and was originally organized here in 1926 as Langdon-Faulkner Co. The name was changed in 1945, and a year later the company moved into its own building at its present address, 72 Vine St.

Well-known in the heating and plumbing trades and among northwest contractors, the company will represent Unarco heating and cooling products in central and western Washington and Alaska.

Inventory and Vacations To Close Servel 3 Weeks

EVANSVILLE, Ind. — Servel's plant will close for three weeks from Aug. 16 through Sept. 6.

The company's annual physical inventory will be made during the week starting Monday, Aug. 16. Donnelly said that there would be no shipment of finished product, service parts, or replacement units during that week.

The factory will remain closed for a two-week plant-wide vacation beginning Monday, Aug. 23. While production facilities will not be in operation during the vacation period, shipment of finished product, service parts, and replacement units will be resumed on Aug. 23.

"We believe that we can best serve our distributive organization," Donnelly said, "by having only one extended shutdown this year instead of two as previously."

Motor Distributor Says KLIXON Protectors Keep Customers Satisfied

CAMBRIDGE, MASS.: Mr. C. F. Dulsen, owner of the Central Electric Co., distributor of electric motors, fans and blowers, says it's *satisfaction* that brings customers back. And the burnout protection given by KLIXON Inherent Overheat Protectors is a big aid in building business.

"A motor with a Klixon Protector will very rarely burnout from any cause. Klixons help to keep customers satisfied as they prevent burnouts from either locked-rotor or overload."

Klixon Protectors Reduce Service Calls and Repairs by Preventing Motor Burnouts

The Klixon Protectors illustrated keep motors in electrical appliances and other motor-driven equipment from overheating and burning out. Look for equipment with Klixon-Protected motors for trouble-free motor operation.

KLIXON

SPENCER THERMOSTAT
Division of Metals & Controls Corporation
2407 FOREST STREET, ATTLEBORO, MASS.

Refrigeration Problems
and their solution
by Paul Reed
For Service and Installation Engineers

Paul Reed

Manual and Automatic Purgers (1)

A reader has asked for a discussion of automatic purgers and diagrams for their connection, so we shall try to furnish this information.

Before doing so it seems logical to offer a few preliminary words of explanation of why manual or automatic purgers offer advantages over purging by simply opening a purge valve or loosening a connection on the condenser, receiver, accumulator, or other part of the system where air or other non-condensibles may collect.

Also, it seems logical to lead up to automatic purgers by first describing manual purgers, which are very similar to automatic purgers.

SOURCES OF NON-CONDENSIBLE GASES IN A SYSTEM

Discussions have previously appeared in this column on non-condensibles in the system, but let us briefly review what non-condensible gases consist of and how they get into a refrigeration system.

1. Air left in the system when the equipment was first installed. If a good vacuum had been pumped on the system before it was charged, this source of non-condensibles need not have occurred.

If the air was "purged" from the system with refrigerant, some air was left in the system, for ordinary purging with refrigerant is bound to leave quite a little air in the system, the amount depending upon how much refrigerant was lost in the purging process; the type of system, that is, whether it included accumulators, headers, and similar vessels; and how many purge cocks were available and where they were located.

2. Air that was allowed to get into the system after the original installation, due to service operations or to leaks in a portion of the system operating continuously or intermittently on a vacuum.

3. Chemical vapors in the system due to break-down or decomposition of oil or refrigerant. Decomposition of oil or refrigerant is usually due to their becoming heated excessively in passing through the discharge valves of the compressor, or in the compressor head and condenser.

Whatever the nature and source of the non-condensibles, their condensation temperatures are far above any temperatures that exist in the refrigerating system, so they exist as gases in any part of the system in which they are found.

NON-CONDENSIBLES CUT CAPACITY AND INCREASE OPERATING COSTS

Most noticeable effect of non-condensibles in the system is the increase in the condensing or head pressure far above that corresponding to the condensing temperature of the refrigerant in the condenser.

With no non-condensible gas in the system, the head pressure corresponds to condensing temperature at saturation. If a non-condensible is present in the condenser, its pressure adds to that of the refrigerant, causing that much higher total pressure against which the compressor must discharge.

It is estimated that with ammonia as the refrigerant, for every additional 4 p.s.i. of condensing pressure above normal, the capacity of the system is reduced 1% and the cost of power is increased 2%.

Therefore, if there is enough air or other non-condensible gas in an ammonia system to increase the head pressure 20 p.s.i. above normal, the capacity of the system is reduced 5% and the cost of operation is increased 10%. These represent very considerable losses in capacity and operating cost, so that it is very well worthwhile to do something about them.

So it is a decided advantage to keep the system free of non-condensibles. An increase in the power bill of 10% is serious enough, but a reduction in system capacity of 5% can be even more serious, for the loss of business from reduced refrigerating capacity may be even more costly than the 10% increase in the power cost.

WHY USE PURGERS?

But why, it may be asked, is it not feasible to merely shut the system down for a short time and allow the non-condensible to separate from the refrigerant gas and then purge it from the top of the condenser and perhaps a few other points in the system?

Anyone who has attempted to purge the air from a high-side float system, even a small ¼-hp. or ⅓-hp. system, (a high-side float is very sensitive to the presence of non-condensibles, which cause a "gas-bound" float) can testify to how difficult it is to remove all of the non-condensible gas from these systems.

Even after as much as one quarter or one third of the refrigerant in a small high-side float system has been blown out along with some non-condensible gas, enough non-condensible gas may be left to cause a "gas-bound" float.

Finally, the service engineer ends up by blowing out the entire charge of refrigerant, pumps a "no-bubble" vacuum, and recharges with new refrigerant. His time spent in attempting to rid the system of non-condensibles, plus the refrigerant lost while attempting to purge out the non-condensibles, is often more costly than to waste the entire charge and start over again—pump a good vacuum and recharge with new refrigerant.

When there is air or other non-condensible in a system, it tends to separate from the refrigerant in the cold evaporator, and to accumulate in the condenser and receiver.

At the warm temperatures of the condenser and receiver, the non-condensible mixes more readily with the gaseous refrigerant. When the system is shut down, the non-condensible separates somewhat from the refrigerant gas, but some of it stays mixed with the gaseous refrigerant.

The separation is far from complete; some refrigerant gas is mixed with the non-condensible and some non-condensible gas is diffused into the supposedly pure refrigerant gas and will not all be separated from the refrigerant gas regardless of how much purging is done by purge cocks.

Moreover, when a purge cock is opened, the rush of gas to the open purge cock tends to re-mix the non-condensible gas and the refrigerant gas.

The best separation of refrigerant gas and non-condensible gas occurs at low temperatures. At low temperatures, more of the refrigerant condenses to a liquid, and the saturated refrigerant gas above the liquid is much more rarified, that is, is at a much lower density.

PURGERS DEPEND ON CHILLING THE GAS

To do a good job of separating the non-condensible gas from the refrigerant gas, we can draw off some of the mixture of refrigerant and non-condensible gases from the condenser and receiver, chill the mixture and thus effect a much better separation.

This is what a semi-automatic or manual purger and an automatic purger do. In effect they are small chambers equipped with small evaporator coils. Some of the gaseous mixture is drawn into this chamber, and chilled by the small evaporator. Consequently, the non-condensible gas is effectively separated from the refrigerant gas.

The non-condensible gas, with a little refrigerant gas in it, is purged to the atmosphere, and the refrigerant gas, which has been condensed by the small, cold evaporator coil in the purger, is later vaporized and returned to the main suction line and thence back to the system.

Thus the purger draws some of the mixture of refrigerant and non-condensible gases from the condenser and receiver, and bit-by-bit removes the non-condensible gas.

It is not a "one-shot" process; it must be performed for quite a while to eventually remove practically all of the non-condensible gas from the system. How often the purger must be operated depends on whether non-condensible gas is permitted to continue to accumulate in the system; and how long it takes to entirely remove the non-condensible gas from the system depends on how much of it was in the system.

In a following instalment, cross-sectional diagrams will show in more detail the operation and mechanical construction of a purger, and diagrams will also be given for connection of the purger to a system for manual or for automatic operation.

(To Be Continued)

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Name Change Debated by ASRE--

(Continued from Page 1)

given by Hunter in suggesting the ASHVE name change.

At its meeting on Sunday, July 11, the ASRE Council approved the request to submit it to a vote of the membership. But a temporary snag was encountered when similar approval was sought in the general meeting Wednesday morning at the windup session.

An initial affirmative vote (requiring a minimum of 20 favorable ballots) appeared lost when a parliamentary technicality was raised by opponents who declared no discussion from the floor was permitted before balloting.

Vote Just Squeaks By

Considerable debate followed—on both the measure itself and parliamentary procedure — and seemed fast approaching the name-calling stage when a second vote was taken (on the basis of another technicality) and the measure squeaked through with 21 votes.

This then had to be backed up by what amounted to a "vote of confidence" in the chairman, President Arthur J. Hess, over his ruling which permitted the second vote.

In the technical phases of the meeting, the informal round-table discussions on topics of current interest proved a highly popular innovation. There were four:

(1) Oil problems with "Freon-22," (2) refrigeration problems in the meat packing industry, (3) capillary tubes versus expansion valves on commercial self-contained air conditioners, and (4) new thinking on short form air conditioning load calculations.

No attempt was made to arrive at definite conclusions on the topics discussed. Immediate success of the first such venture, however, prompted the committee to announce that six will be held at the next ASRE national meeting, scheduled for Nov. 28 to Dec. 1 in Philadelphia at the Benj. Franklin hotel.

Present and future trends in the household refrigerator occupied the Domestic Refrigerator Engineering Conference chairmanned by E. T. Morton of Admiral Corp.

What Does Mrs. America Want?

"The industry has been paying too much attention to gadgets and not enough to sound construction," declared Miss Willy Mae Rogers, director of Good Housekeeping Institute, in discussing "What Does Mrs. America Desire In Her Refrigerator?"

As for future design, she cited the "continued need" for more frozen food storage space kept at "temperatures low enough to hold frozen foods for two weeks," a vertically divided refrigerator with the freezer space on one side and normal temperature space on the other, quieter designs, and an easier way of removing frost from the freezer section in other than automatic defrosting models.

Some doubt about the current trend to color was voiced by Miss Rogers.

"I've a feeling that it may be a decorator's demand," she said. "Women who know they'll be using a refrigerator for 15 to 20 years realize they may not want a certain color that long."

Joint promotion of home freezers by the frozen food packer, the food store, and the appliance dealer was urged by G. L. Mentley, general sales manager, Birdseye Div., General Foods Corp.

"This is working right now, but not to the extent it can," he said.

Mentley was primarily concerned, however, with the need for "more elbow room" for frozen foods at the retail level.

"We are limited in our progress by lack of storage space in the retail store and in the home," he said. "The retail food industry recognizes the need but doesn't realize the inadequancy of its present equipment."

New Type Frozen Food Case?

He sees a possible solution in a less expensive, shallow "merchandising display counter rather than the present storage-display case," the former being re-stocked frequently from a "functional, expandable" walk-in located in the back room.

"The potential of frozen foods is beyond imagination, especially for pre-cooked frozen products," Mentley is convinced.

Speaking on behalf of the appliance dealer, Keith Davis of Seattle, a NARDA director, called attention to the fact that "the refrigerator is being pushed out of its No. 1 position" in the dealer's operation by television, automatic washers and dryers, air conditioners, and freezers.

Dealers Must Service

"I feel that we must get back into the servicing business to rebuild the retail dealer," he declared.

"All we ask of the manufacturer is that production be set within reason, that prices be set to meet fair competition, and that there be a fair, but not lavish, profit left after the sale."

Sharp advances in refrigerator design in the next few years were predicted by A. J. Pfeiffer, manager of refrigeration engineering for Avco's Appliance & Electronics Div.

Smaller Refrigerator Components

Examples:

"In the year 1960, the average size will be 12 cu. ft., with approximately 3 cu. ft. of frozen food storage space.

"The trend will be to colder frozen food storage temperature [an average of 0° instead of 0° to +10°] and, perhaps, a slightly rising normal storage temperature to an average of about 40° [instead of about 38°].

"No matter where it is located, the compressor will continue to shrink in size.

"With the probable use of less refrigerant, smaller condenser volume will be required."

Electrical problems — described as "most immediate and pressing" —were the center of attention of the Room Air Conditioner Conference, which had as its theme "Our Adolescent Major Industry."

Comparing the tremendously rapid development of this industry and predicting shipments of 1,350,000 units in 1954 (2,175,000 by 1957), Conference Chairman H. L. Laube opened the session by outlining "growing pains" which he said, "while natural and understandable, are neither inevitable nor incurable."

Some of the ills are self-imposed while others "are inflicted upon us by outside causes," said Laube, president of Remington Corp.

It is in the realm of commercial problems where "our industry insists on hurting itself the most," he declared. "We build production capacity which exceeds our ability to sell; we emphasize hot weather comfort when the biggest things we have to offer are in the area of health and increased productivity . . . price cutting begins before the season does and, instead of ending when the hot selling weather arrives, simply becomes even more merciless."

Room Cooler Problems

Pressing electrical problems cited by Laube included the requirements for increased power factors and lower current input, "increasingly inadequate electric supplies at points of use, more severe requirements on the part of Underwriters' Laboratories," and "incipient reclassification" by the National Electric Code Committee which would impose the more severe requirements of fixed rather than portable electrical equipment.

"These problems are those common to adolescence," he emphasized. "But we will outgrow them. And, in the meantime, our progress and our contributions to the public good are such that we need not feel ashamed."

Speaking from the viewpoint of the utility, C. E. Baugh, manager of electrical distribution for Pacific Gas & Electric Co., pointed out that "the central station industry welcomes the air conditioner boom" even though it does "present power supply problems."

Utility Look at Cooling Load

Four major problems were listed: (1) inadequate wiring in family housing units, (2) low power factor, (3) low diversity of use, (4) low annual load factor.

If not corrected or compensated for, the last three will lead to rate increases, Baugh indicated, while "failure to comply with code provisions governing house wiring and circuit loading and with utility regulations governing starting current will result in fuse blowing, overheated house circuits, annoyances to other customers, and general customer dissatisfaction with air conditioning performance," he said.

No "miraculous new performances, but a steady continuation of the improvements accomplished so far" in shaded pole fan motors for air conditioners was predicted by I. E. Ross, manager of engineering for General Electric Co.'s Specialty Component Motor Dept.

Better efficiency, perhaps some improvement in power factor, standardization of mountings and leads, more quietness of operation, and better lubrication are goals that may be attained to greater or lesser degree, though possibly at the sacrifice of low cost, he indicated.

"Now that forecasts of optimistic sales volume are no longer hazardous, it is my contention that the compressor industry must put forth greater effort in designing and building compressors better suited to and specifically engineered for room air conditioner application," said J. A. Galazzi, chief engineer of product engineering for International Harvester Co.

He urged improvements be made in compressor capacity, power factor, current draw, noise level, and size, keeping the diameter small to achieve more compact arrangements.

Rotary Unit for Heat Pump?

"The potentialities of the heat pump for room air conditioners appear large," he also commented. "What type of compressor would best suit the reverse cycle operation? Is it fanciful thinking to consider seriously a rotary design in which the refrigerant flow could be reversed by reversal of rotor rotation? Such a scheme obviously would entirely eliminate the present costly reversing valve and simplify the refrigerant piping, etc."

In one other talk at this conference advantages and disadvantages of reverse cycle heating with respect to electrical resistance heating were reviewed by James E. Blythe, executive engineer of Airtemp Div., Chrysler Corp.

First of the three regular technical sessions was devoted chiefly to mechanical refrigeration systems for railroad "reefers," two papers being optimistic while the third had some doubts, except for frozen foods.

"The outlook for the economics of the mechanically refrigerated car, while not yet settled, appears most encouraging," said C. F. Henney and D. C. McCoy of Frigidaire Div., General Motors Corp.

"Technical difficulties incapable of solution are not in sight; however, some of the problems still to be solved may require considerable time and work," they cautioned.

"Mechanical refrigeration provides the best crutch to take care of the time used in getting the product from factory to consumer," declared Ralph W. Ransom of John Morrell & Co. which has a fleet of 25 mechanically refrigerated freight cars in operation.

Conceding that mechanical systems are necessary for frozen foods, K. V. Plummer of Pacific Fruit Express Co. contended that "when it comes to fresh fruits and vegetables, I think the iceman will be with us for some time to come. . . . It is not a question of whether we want to change our methods, but whether we can afford to do so, and after doing so, what advantage will accrue."

(Concluded on next page)

LET'S GET THE RECORD STRAIGHT

Because of misrepresentations by some of our competitors we wish to advise the ice-making machine industry that we are the exclusive licensee in the United States of the Lees Patent (#2659212) as well as Lees Patent Application S.N.220,044, Lees Patent Application S.N.311,971, Albright Patent Application S.N.253,394, Lauterbach Patent Application S.N.354,931, and Lauterbach Patent Application S.N.361,685.

Suit filed by Gerald M. Lees against Akshun Manufacturing Company, Col-Flake Corporation, et al (Case No. 51C1546) was "dismissed with prejudice" by Federal Judge Barnes on March 15, 1954 in the United States District Court at Chicago. In other words, the Lees Patents and Patent Applications which were the subject of that court action were found to be the property of Akshun Manufacturing Company who had theretofore given an exclusive licensee in the United States to Col-Flake Corporation.

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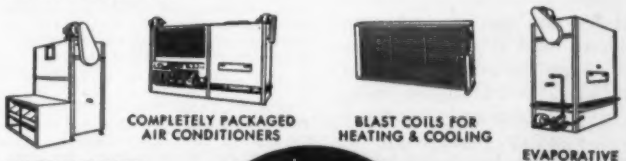

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ASRE Meeting--

(Concluded from preceding page)

Final paper of the first session was a discussion of vacuum cooling of produce to remove field heat by Harold P. Hayes, dean of engineering, California State Polytechnic college, who described its phenomenal growth in cooling lettuce and declared that it "appears to have a highly interesting future."

Insulation was the general topic for the second technical session.

Results of conductivity tests on 12 commercial insulations at -200° F. were reviewed by J. D. Verschoor of Johns-Manville Research Center, who found that the "k" factor varied from 0.11 for one type to a high of 0.35 for another.

Heat Transfer Through Refrigerator Car Walls

In another paper Profs. J. T. Gier and R. V. Dunkle of the University of California described the application of a heat flow meter (composed of multijunction thermopile elements arranged in a thin plastic slab) to study heat transfer through a typical railroad refrigerator car wall and insulation used in such applications.

An interesting new development in vapor barriers was described by James G. Macormack, president of Alumiseal Corp., who said that a laminate composed of aluminum foil covered with Dupont's new polyester film called "Mylar" has proved to be a vapor barrier "with the zero range of permeability of the aluminum and with the extremely high strength, toughness, and inertness of the polyester film."

Desalting Water by Freezing

At the final technical session refrigeration engineers were challenged to develop a practical means of desalting sea water by freezing, the possibilities of which have been demonstrated in the laboratory.

These experiments were outlined by Thomas G. Thompson and Kurt H. Nelson of the University of Washington's Department of Oceanography.

W. L. Holladay of Holladay & Westcott was commended for his paper describing a method for determining pressure drop of "Freon-12" and "Freon-22" flowing in Type L copper tubing of various standard sizes in evaporator circuits as well as suction, discharge, and liquid lines.

The data developed by the author is presented in the form of seven charts.

Problems and factors involved in the selection of motor protectors for fractional horsepower hermetic units were analyzed by E. W. Scott, supervising engineer of Westinghouse Electric Corp.

Selection is complicated, he explained, by the fact that a given hermetic unit may be subjected to varied operating conditions.

Cooling Multi-Room Buildings

Last paper on the program was a discussion of air conditioning multi-room buildings, both new and existing, by means of high velocity air systems.

According to F. Honerkamp, chief engineer of Anemostat Corp. of America, such systems, if properly designed and installed, can offer favorable economic advantages.

High point in the entertainment program for the meeting was the Puget Sound boat trip and salmon barbecue staged Monday afternoon and evening. The traditional cocktail party and dinner dance were held at a country club, while at the welcome luncheon, Monday, guests were given a witty sketch of Seattle's history by Judge Matthew W. Hill of the Washington State Supreme Court.

The society inaugurated celebration of its 50th anniversary this year at the luncheon when Edward Simons, past president, presented formal charters to several sections whose original charters are no longer to be found.

Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing officer under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date.

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices.

Invitations for Bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q" or, if numbered, the number will be followed by the letter "Q."

DEPARTMENT OF DEFENSE

Description	Quantity	Reference No.	App. Bid Date
Corps of Engineers, U.S. Army, Office of the District Engineer, Washington District, First and Douglas Sts., N.W., Washington 25, D. C.			
U.S. Army Hospital at Fort Belvoir, Va. Construction of a 250 bed hospital with all facilities for expansion to 500 bed capacity. The building will be of reinforced concrete construction with reinforced concrete exterior walls, 2-way solid slab and ribbed pan construction floors, masonry furred exterior walls, masonry panels in exterior walls, and interior masonry partitions. The project includes . . . heating ventilating, air conditioning, and refrigeration. . . .	Job	ENG-49-080-55-2-(2)	31 Aug 54

CONTRACTS AWARDED THROUGH JULY 16

Officer in Charge of Construction, Public Works Office, Fifth Naval District, Norfolk 11, Virginia

Air conditioned instrument storage building, Naval Aviation Ordnance Test Station, Chincoteague, Virginia. NOy-83244.—Job, $37,667.—W. H. Belanga, 619 W. 25th St., Norfolk, Va.

Middletown Air Materiel Area, Olmsted Air Force Base, Middletown, Pennsylvania

Gas, Freon-12 RFP 36-600-54-5192.—400,000 lbs., $181,500.—E. I. DuPont de Nemours & Co., Inc., Organic Chemicals Dept., Wilmington, Del.

U.S. Marine Corps, The Quartermaster General, Washington 25, D. C.

Frozen Food, Condensing Unit, etc.—$42,115.—Bodner-Shames, Inc., 1601 Monticello Ave., Norfolk 10, Va.

Bureau of Ships, Washington, D. C.

Condensing Unit equipment for air conditioning.—11. $209,936.—York Corp., York, Pa.
Condensing Unit equipment for refrigerating (549-795).—11.
Condensing Unit equipment for air conditioning.—11. $214,668.—Carrier Corp., New York, N. Y.
Condensing Unit equipment for refrigerating (549-795).—11.

Savannah District, Corps of Engineers, Savannah, Georgia

Alterations to Heating System for Administration Building, Turner Air Force Base, Albany, Ga. (ENG-09-133-54-48).—Job, $1,646.—J. O. Blair Plumbing & Heating Co., 426 Pine Alley, Albany, Georgia.
Construction of Warm-Air Heating System for Operation Building, Lock & Dam at New Savannah Bluff, Savannah River Below Augusta, Ga. CIVENG-09-113-54-43.—Job, $1,095.—Marks Heating & Air Conditioning Co., Fifth St. Extension, Augusta, Georgia.

U.S. Navy Purchasing Office, Naval Supply Center, Norfolk 11, Virginia

Controlled temperature test chamber.—1 ea., $84,321.—Tri-State Engineering & Sales, Inc., S. Salisbury Blvd., Salisbury, Md.

Officer in Charge of Construction, Public Works Office, Fifth Naval District, Norfolk 11, Virginia

Installation of Air Conditioning Equipment in Building Nos. 822 and 836, U.S. Naval Hospital, Bainbridge, Md., NOy-83246.—Job, $36,495.—The Oreole Refrigeration Co., 2308-10 Frederick Ave., Baltimore 23, Md.

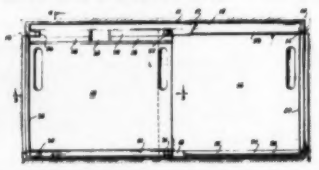
General Services Administration, Business Service Center, Region 2, 250 Hudson St., New York 13, N. Y.

Heating system, etc. U.S. V.A. Bldg., 128 N. Broad St., Philadelphia, Pa.—Job, $56,270.—A. J. Jenkins, Warsaw, N. C.

PATENTS

Week of March 23

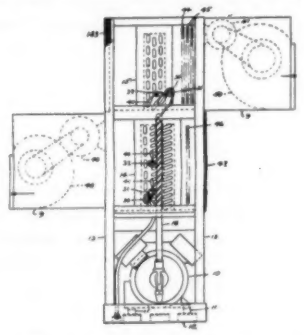
2,672,656. SLIDING DOOR CONSTRUCTION FOR REFRIGERATED CABINETS. Albert J. Lorenz, Clifton, N. J., assignor to American Hard Rubber Co., New York, N. Y., a corporation of New York. Application Dec. 29, 1951, Serial No. 264,155. 6 Claims. (Cl. 20—19.)



1. A sliding door construction for a refrigerated compartment, comprising stationary upper and lower sills, each providing a guide track for a sliding door, said guide tracks being parallel to one another and said guide track of said upper sill comprising a grooved guideway, stationary side members cooperating with said sills in defining an opening into said compartment; a door mounted for sliding movement in said guide tracks for opening and closing said opening, said door having a lower portion slidably cooperating with said guide track of said lower sill, said door having an upper flange portion extending into said grooved guideway of said upper sill, a resilient gasket member carried by one side of said upper flange member and disposed within said grooved guideway of said upper sill, cooperating wedge means, including stationary wedge means fixed in respect to said upper sill and cooperating wedge means carried by said door for registry with said stationary wedge means at the closed position of said door, said cooperating wedge means serving to move the upper portion of said door in a direction generally perpendicular to the plane thereof and thereby to compress said resilient gasket member to seal said opening when said door is closed; and means for preventing bodily removal of said door from said compartment except when said door is located within a predetermined limited range of its path of movement, including one of said wedge means acting as a locking lug, a ledge cooperating with said locking lug to prevent vertical movement of said door when any part of said ledge is opposite said locking lug, said ledge and said locking lug being relatively moved by sliding movement of said door in said guide tracks, and a recess in said ledge having a predetermined extent in the direction of the sliding movement of said door for determining the limits of said range and arranged to be opposite said locking lug when said door is moved to any position within said predetermined limited range, so that at such position of said door, it may be bodily removed from said compartment by lifting said door until said lower portion thereof is clear of said guide track of said lower sill, then swinging the lower portion of said door outwardly of said compartment until it is clear of said lower sill, and then lowering said door until said upper flange portion thereof is clear of said grooved guideway of said upper sill.

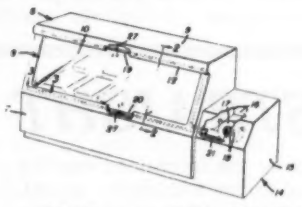
2,672,734. AIR CONDITIONING APPARATUS. John L. Ditzler, Sharon, and Gerald L. Biehn, Needham, Mass., assignors to Westinghouse Electric Corp., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Nov. 7, 1950, Serial No. 194,400. 3 Claims. (Cl. 62—6.)

1. In a heat pump having an indoor air heat exchanger, an outdoor air heat exchanger and a refrigerant compressor, the combination of refrigerant reversal valve means comprising a cylinder having an inlet port connected to the discharge side of said compressor, and having an oppositely disposed outlet port connected to the suction side of said compressor, said cylinder having a third port and having a fourth port located opposite said third port, said third and fourth ports being located between said inlet and outlet ports, said third port being connected to one end of said outdoor air heat exchanger, said fourth port being connected to one end of said indoor air heat exchanger, means including refrigerant expansion means connecting the other ends of said heat exchangers, a piston slidable in said cylinder from a first to a second position, said piston having a first transverse slot aligned with said inlet and fourth ports when said piston is in said one position whereby gas passes from said compressor through said inlet port, said slot and said fourth port into said one end of said indoor air heat exchanger, said piston having a second transverse



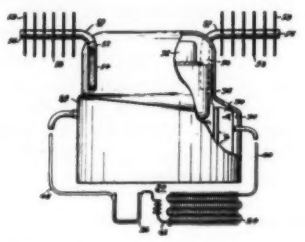
slot spaced transversely of the piston from said first slot and aligned with said outlet and third ports when said piston is in said one position whereby gas flows from said one end of said outdoor air heat exchanger through said third port, said second slot and said outlet port to said suction side of said compressor, said piston having a third transverse slot spaced longitudinally of the piston from said first and second slots, said piston having a fourth slot spaced transversely of the piston from said third slot, said piston being slidable to said second position where said third slot is aligned with said inlet and third ports and said fourth slot is aligned with said outlet and fourth ports whereby discharge gas from said compressor passes through said inlet port, said third slot and said third port into said one end of said outdoor air heat exchanger, and gas from said one end of said indoor air heat exchanger passes through said fourth port, said fourth slot and said outlet port to said suction side of said compressor, and means for moving said piston to said first position for indoor air heating and to said second position for indoor air cooling.

2,672,735. CONDENSATION PREVENTING MEANS FOR DISPLAY CASES. James Fusselman, deceased, late of Tampa, Fla., by Forrest O. Hobbs, administrator, Tampa, Fla., assignor of two-thirds to Harriet V. Jones and one-third to Henry O. Wilson, Tampa, Fla. Application Oct. 9, 1951, Serial No. 250,286. 1 Claim. (Cl. 62—89.5.)



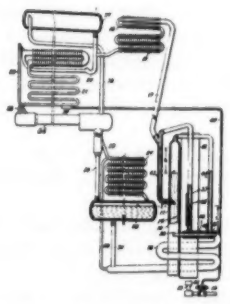
In combination, a refrigerated display case including a window, a mechanical refrigerating unit comprising a housing including a chamber in its upper portion adapted to be warmed by the unit, said chamber being out of communication with said housing and having air intake openings therein, a power driven blower operable in the chamber and comprising a discharge nozzle, pipes mounted on the case and having openings therein for directing air against the window, and means connecting said pipes at one end to the blower nozzle for receiving air therefrom, said means including a plug mounted in the nozzle and having threaded openings, said pipes comprising threaded end portions screwed into the last named openings, and screws securing said plug in said nozzle.

2,672,736. COMPRESSOR COOLING IN REFRIGERATING APPARATUS. Lawrence A. Philipp, Detroit, Mich., assignor to Nash-Kelvinator Corp., Detroit, Mich., a corporation of Maryland. Application Aug. 31, 1950, Serial No. 182,606. 3 Claims. (Cl. 62—117.4.)



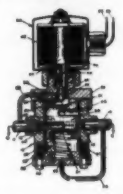
1. In refrigerating apparatus, a cabinet having a cooling compartment and a machinery compartment, a wall member spaced from a wall of said cabinet in overlying relationship to said machinery compartment forming therewith an upwardly tapering flue to induce flow of heat away from said machinery compartment, a refrigerant evaporator arranged to absorb heat from said cooling compartment, a refrigerant motor-compressor unit in said machinery compartment operatively connected to said evaporator, a refrigerant condenser operatively connected to the motor-compressor unit and to said evaporator, and a secondary refrigerating system having a portion in thermal heat conducting relationship with said motor-compressor unit and a portion extending outwardly therefrom into said flue and terminating therein below the apex of said tapering flue to aid in inducing the flow of air through said flue and about said condenser and motor-compressor unit.

2,672,737. ABSORPTION REFRIGERATION. Wilhelm Georg Kogel, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden. Application Aug. 19, 1950, Serial No. 180,477. Claims priority, application Sweden Aug. 25, 1949. 1 Claim. (Cl. 62—119.5.)



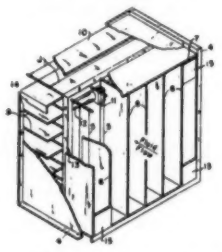
In an absorption refrigerating system, a circuit for circulation of absorption solution including a boiler and an absorber and a liquid heat exchanger therebetween having inner and outer passages, means for heating said boiler to expel vapor from solution therein, a pump for raising liquid having the upper end thereof communicating with said boiler, said pump comprising a vapor-liquid lift including a riser having a cross-sectional area of such size lengthwise thereof that vapor entering the extreme lower end of such riser is capable of lifting liquid therein, first conduit means including the outer passage of said liquid heat exchanger for conducting from said absorber to said pump absorption solution enriched in refrigerant, the outer passage of said liquid heat exchanger including a horizontally extending portion having first and second regions at spaced apart portions thereof, second conduit means for conducting vapor from said boiler into intimate physical contact with enriched absorption solution at the first region of the outer passage of said liquid heat exchanger and through such outer passage to the second region thereof which is removed from said first region, said riser comprising an upright pipe extending upwardly from said second region, the second region of the outer passage of said liquid heat exchanger being at the extreme lower end of said riser and at which said enriched absorption solution is initially raised by vapor lift action with vapor from said boiler, and means for heating said solution to promote raising thereof in said riser by vapor lift action which is augmented by said boiler vapor, said last-mentioned heating means including provisions for heating said upright pipe and being operable to effect heating of said absorption solution after passing the first region of the outer passage of said liquid heat exchanger and before being raised by the higher level from the second region thereof and ineffective to apply heat directly to absorption solution at the immediate vicinities of the first and second regions of the outer passage of said liquid heat exchanger.

2,672,887. MULTIPLE-PORT VALVE FOR AIR CONDITIONING SYSTEMS. Virgil W. Tipton, Miami, Fla., assignor to Tipton Heat Pump & Valve Corp., Miami, Fla., a corporation of Florida. Application July 21, 1950, Serial No. 175,243. 5 Claims. (Cl. 137—657.)



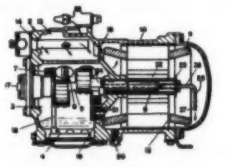
1. A multiple-port valve having a valve casing, a plurality of ports contained by said casing, said ports lying in a plane and comprising a plurality of inlets and outlets, a valve body slidably mounted in said valve casing, means mounted in said casing yieldingly forcing said valve body in one direction, a plurality of passages formed in said valve body lying in a plane to form a group and adapted to connect each of said inlets with each of said outlets with said valve body in said position, further means operably connected to said valve body adapted to slide said valve body against said first named means in the opposite direction, and a second group of passages formed in said valve body in a plane parallel to and spaced from said first group constructed and arranged to connect said inlets together and said outlets together with said valve body in said another position.

2,672,948. IONIZING UNIT FOR ELECTROSTATIC FILTERS. Gaylord W. Penney, Pittsburgh, Pa., assignor to Trion, Inc., McKees Rocks, Pa., a corporation of Pennsylvania. Application Dec. 9, 1952, Serial No. 324,883. 13 Claims. (Cl. 183—7.)



1. An ionizing unit for electrostatic filters comprising two sets of electrodes, each set having opposed pairs of electrodes spaced across the path of fluid flow through the unit, one set being positioned behind the other in the direction of fluid flow, one set of electrodes extending in a direction which is at an angle to the direction in which the other set extends whereby the majority of the ends of the electrodes of each set lie in line in the direction of fluid flow with portions of the electrodes in the other set which are spaced from the ends of the electrodes of which they form a part.

2,673,026. HERMETIC MOTOR-COMPRESSOR UNIT. Karl M. Gerteis, Syracuse, N. Y., assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application November 14, 1950, Serial No. 195,548. 6 Claims. (Cl. 230—58.)



1. In a hermetic motor-compressor unit in which the motor has a rotor and the compressor has pistons, the combination of a crankcase compartment, a motor compartment through which suction gas passes to the compressor, a partition separating the compartments, a shaft extending from the crankcase compartment into the motor compartment, said shaft being connected to the rotor of the motor and to the pistons of the compressor, a check valve in the partition, and means in said shaft to reduce pressure in the crankcase compartment below the pressure in the motor compartment to permit lubricant to return to the crankcase compartment from the motor compartment through the check valve.

(To Be Continued)

TEST ENGINEER

Air Conditioning & Refrigeration Equipment. Minimum of 2 years lab test experience on air conditioning & refrigeration equipment required. BSME. Plant is located in Southern California. BOX A5010, Air Conditioning & Refrigeration News.

Loyd Scruggs Transfers Operations to Festus, Mo.

FESTUS, Mo.—As part of a general expansion program, The Loyd Scruggs Co. recently transferred its operations from St. Louis to a new, larger plant here. Festus is about 35 miles south of St. Louis.

With the opening of the Festus plant, the company enters the 6-pole shaded pole motor field, according to Don F. McCarron, president. These motors are used in room air conditioners, exhaust fans, and other applications where quiet, continuous motor operation is required, it was pointed out.

Also, the company will continue to manufacture its line of 4-pole shaded pole motors and universal, d.c., and capacitor types of motors.

The recently-acquired Festus structure is a modern building described as "ideal for manufacturing of electric motors." It has approximately 43,000 sq. ft. of floor space, about twice that of the St. Louis plant occupied since its inception in 1934.

Roberts Heads New Bohn Office In Rochester, N. Y.

DETROIT—A new sales office for Bohn Aluminum & Brass Corp. has been opened in Rochester, N. Y., according to T. W. Kuhn, vice president in charge of sales.

Joseph H. Roberts, of the main office in Detroit, will take over management of the new sales office. His territory will also include western New York. The office is located in the Reynolds Arcade building, Rochester N. Y.

Nashville Utility Works To Eliminate Hazard of Abandoned Refrigerators

NASHVILLE, Tenn.—The Nashville Electric Service here is offering the facilities of its service department free of charge to help render discarded or stored refrigerators harmless, William D. Hall, sales promotion manager for the utility, announced recently.

The offer is good only during July and August, he informed the utility's 105,000 customers through a special bill stuffer. The stuffer warned:

"Don't let your old refrigerator or freezer be a menace to children's lives. It's so simple, so sensible, so easy to make it 100% safe and harmless. Remember, the child you save may be your own!"

The stuffer then explained that the refrigerator could be made harmless by removing the entire door, the latch stop, or removing the gasket and drilling holes through the body of the box.

At the same time, Hall urged local dealers and distributors to tie in with the offer. He asked them to make a similar offer to new refrigerator purchasers, alert their personnel to watch for discarded or stored refrigerators in customers' homes and offer to remove the latch, and to place a copy of the stuffer in all new refrigerators on display and send along a copy with every refrigerator delivered.

M-H Opens 7,500-Sq. Ft. Seattle Office, Warehouse

MINNEAPOLIS — Expanded facilities for the sale and service of automatic controls in the Pacific Northwest and Alaska will be provided by Minneapolis-Honeywell Regulator Co. with the opening of a new 7,500-sq. ft. office and warehouse in Seattle, Wash., the company has announced.

An office was first established in Seattle in 1942 with three employes. Today 44 persons are employed.

Geocaris Joins Sales Staff of Multi-Vent

CHICAGO—Robert Geocaris has joined the sales staff of the Multi-Vent Div. of Pyle-National Co., manufacturer of electrical and air conditioning equipment for railroads and industry, H. V. Engh, president, announced recently.

Geocaris formerly was chief engineer of S. J. Reynolds Co., and a sales engineer with Grinnell Co. Prior to military service in World War II he was with General Motors Corp., and the Chrysler Corp.

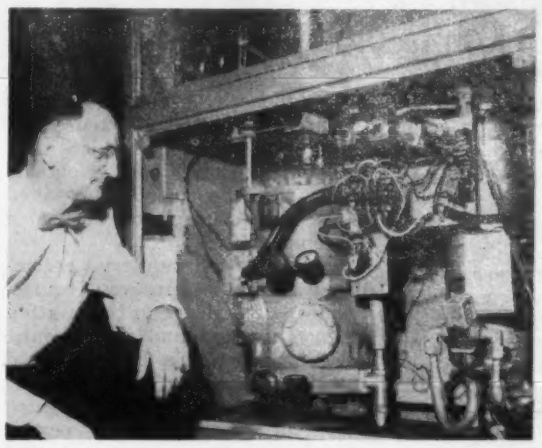
He is widely known in the air conditioning, heating, and ventilating systems field, and is a member of the American Society of Heating & Ventilating Engineers and of the Heating, Piping & Air Conditioning Contractors Association.

Trane Offices In Charlotte, Nashville Change Locations

LA CROSSE, Wis.—The Trane Co. announces the change of address of two sales offices.

The Charlotte, N. C. sub-office of the Greensboro sales office is now located in the Smith building at 116½ S. Church St. Loy F. Thompson is sales engineer in charge of the office.

The Nashville, Tenn. sub-office of the Louisville sales office is now located at 1810 Broad St. Sales engineer in charge of this office is Fred Davidson, Jr.



FRANK KURETICH, supervisor of Square D's Engineering Laboratory at Milwaukee, checks new motor starter (the unit from which the wires lead).

Square D Tests Air Conditioning Controls for Several 'Service Lifetimes' In Their Own Laboratory

MILWAUKEE — To check the performance of its air conditioning motor control, the Square D Co. is currently running a series of intensive tests with an actual production model air conditioner.

The tests, subjecting the control unit to the equivalent of several "service lifetimes" of actual running, subject Square D's product to many thousands of "ons" and "offs," Thus, in the laboratory setup, the air conditioner is made to come on and off in a cycle of less than a minute—instead of the far longer periods of normal operation.

An electrical counting device reports on the number of starter operations, so that engineers can gauge performance and compare the laboratory record with performance as it would be in use.

Square D Industrial Controller Div. in Milwaukee developed its own air conditioning magnetic starter as a "definite purpose" unit, built especially for air conditioning compressors of capacity up to 30 amperes.

New Bank To Be Cooled

BIRMINGHAM, Ala.—Construction has begun on an ultra-modern new air conditioned branch for Birmingham Trust National Bank at 24th St. and Sixth Ave. S., it was announced by John S. Coleman, president.

PROJECT MANAGER for MECHANICAL CONTRACTOR

Top, well paying position for qualified man with extensive experience on large size air conditioning jobs. Must be thoroughly familiar with job operations, labor, subcontracting. Knowledge of piping installation essential. Write, giving complete personal data, including education, experience and salary requirements. Confidential.

BOX A5006, Air Conditioning & Refrigeration News.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" $7.50 per insertion. Limit 50 words. 15¢ per word over 50.

RATES for all other classifications $10.00 per insertion. Limit 50 words. 20¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

MANUFACTURERS REPRESENTATIVE, metropolitan New York and New Jersey, needs an additional line of refrigeration or air conditioning equipment. Twenty-five years of successful sales, and competent engineering of both freon and ammonia. BOX A5007, Air Conditioning & Refrigeration News.

WANTED: TO associate with well known air conditioning manufacturer in territory preferably located southeast part of country. The age is 30 but experience includes district manager for major air conditioning manufacturer, district manager for hydraulics manufacturer, present position being sales manager for large company. Income past year $10,000. Can arrange to interview any place. BOX A5011, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

SALES MANAGER—Refrigeration air conditioning products for manufacturer automatic controls. Location, California. Please give us age and salary requirements. BOX A5002, Air Conditioning & Refrigeration News.

JUNIOR ENGINEER, with refrigeration and air conditioning service background, to correspond with field on technical service problems and issue technical bulletins for export headquarters office of well-known national manufacturer. Good future possibilities. State age, experience and education details. Application held in strict confidence. BOX A5005, Air Conditioning & Refrigeration News.

MANUFACTURER'S REPRESENTATIVE to call on refrigeration parts and equipment wholesalers. Complete line of nationally advertised chemical products for refrigeration and air conditioning industry. Sales already proven. Give complete details as to experience and territory you cover in first letter; include lines now represented. BOX A5008, Air Conditioning & Refrigeration News.

AIR CONDITIONING engineer. Air conditioning contractor in the metropolitan NYC area requires a qualified, experienced engineer, take charge of the engineering department. High salary plus bonus arrangement. Lifetime opportunity for the right man. Our employees know of this ad. BOX A5009, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

ATTENTION SERVICEMEN: Send for our refrigeration parts and supplies catalog. Save up to 50% on many items. Relays, V belts, T.X. valves, fittings, controls, driers. New—guaranteed merchandise. WALTER W. STARR REFRIGERATION, 2833 Lincoln Avenue, Chicago 13, Illinois.

ATTENTION SERVICEMEN—Model ZB Servel Compressors built especially for automobile air conditioning—rebuilt and refinished like new. Rebuilt ⅓ hp Mills condensing units with Wagner motors and pressurestats. Rebuilt ⅓ hp Mills close coupled units complete. Any above each $40.00 FOB Box 1351, Fort Worth, Texas.

Reading AIR CONDITIONING & REFRIGERATION NEWS should be just like reading your local newspaper, and if you find yourself with anything less than "top billing" on the reading schedule, you'll find that the news is not as fresh as you'd often like it to be.

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7-26-54

FHA Home Air Conditioning Bulletin ME-12--

(Concluded from Page 1, Col. 2)

particular requirements, either broadening or restricting previous language. Some former requirements have been dropped entirely and some new ones have been added.

Many of the changes are in line with recommendations made to the FHA some time ago by the Air-Conditioning & Refrigeration Institute and the National Warm Air Heating & Air Conditioning Association. However, other industry recommendations were rejected or modified.

EVAPORATIVE COOLING SYSTEMS NOT INCLUDED

As before, the guide specifies that an acceptable installation is one where the equipment is designed and installed as a permanent part of the house. It eliminates window and console units, and specifically points out that it does not refer to evaporative cooling systems.

The new guide says that the installation shall include, in general, a distribution system (rather than ductwork as previously required) serving, as a minimum, the living room and any adjacent spaces not separated by doors, and at least one bedroom. The previous guide just called for one "habitable" room rather than a bedroom.

The new guide further adds that the system shall be so arranged that sufficient cooling capacity can be directed to the bedroom to produce specified conditions in that space. No mention of this was made before.

Unit conditioners designed for installation in walls are now considered acceptable, the bulletin says. Referring to evaporative cooling systems, it declared that such systems may be accepted by local insuring offices where suitable conditions prevail.

HEAT GAIN CALCULATIONS REVISED

FHA requirements on heat gain calculations were entirely revised, generally along lines suggested by the industry. Method of computing sensible heat gain, formerly limited to that in the ASHVE Guide, was broadened to include ARI standards, and NWAHACA manuals and other recognized and accepted methods. Latent heat requirements were dropped entirely.

Outside design conditions must prescribe dry and wet-bulb temperatures as listed in the ASHVE Guide for particular cities. Those not listed will be established by FHA.

Where previously inside design conditions in excess of 80° F. dry bulb and 50% r.h. were not recommended, this is now modified by the phrase "in most geographical areas," suggested by the industry.

The new FHA guide drops its previous paragraph on safety devices but specifies that all refrigeration systems and components shall comply with the ASA B.9 code.

REFRIGERANTS

It also drops all references to "Freon," but specifies that refrigerants used shall be non-toxic and non-combustible and shall be approved as a Group 1 refrigerant as classed in the B9 code. It adds an exception, however, that sealed absorption systems may use Group 2 refrigerants when in compliance with the code. It fails to include an industry suggestion that water be considered acceptable as a refrigerant.

The new manual follows industry recommendations on piping by eliminating the requirement that they be hot dipped galvanized and making the use of water treatment means optional rather than mandatory.

A paragraph on the location of cooling coils has been added, a subject that was not covered in the previous bulletin. Another new requirement is that all exposed refrigeration piping located less than 6 ft. above any floor or outside grade shall be suitably protected to prevent damage or injury to persons.

Though the industry recommended that clearance requirements be restricted to the heating side of a year-round system only, FHA rejected this but answered some objections by stating simply that clearances shall be provided from all construction to permit proper operation, adjustment, and repair of equipment. It made no mention of meeting AGA or UL standards as did the previous ME-10.

CONDENSATE DRAIN REQUIREMENTS SPELLED OUT

Requirements for condensate drains are spelled out in considerably more detail in the new guide. It specifies that they not be directly connected to a plumbing drainage system.

Considerable new material was added to requirements for distribution systems and provisions in the ME-10 were completely revised. The new material, however, follows only to a limited degree the recommendations offered by the industry. The scope of the new requirements is best gained by reading the text.

An industry recommendation that FHA drop its requirements as to decibel limitations to control noise was rejected. However, the new ME-12 does modify the former limitation of 45 decibels in the living space to say that the noise level should generally be no higher than 45 decibels in a furnished room or 50 decibels in an unfurnished room.

WIRING REQUIREMENTS COMPLETELY REWRITTEN

Wiring requirements were completely rewritten. The manufacturer's wiring diagram is to be furnished for packaged units and a complete wiring diagram for field assembled units. Compressors are to be installed on 208, 220, or 230-volt circuits unless exempted by the Chief Underwriter. And all wiring shall be in compliance with the National Electrical Code. Motors are to meet the U.L. standard for air conditioning equipment.

The new guide not only provides that operating and maintenance instructions be provided, but also that they be attached to or adjacent to the equipment.

Complying with an industry recommendation, FHA dropped its requirement for a statement regarding intent and its recommendations regarding economy of operation. It substituted for them a paragraph on performance guarantee.

It now requires, as recommended, that a performance guarantee by the contractor be made part of the contract specifications, but it also adds that the guarantee shall include evidence of adequate service facilities acceptable to the Chief Underwriter.

Warranty requirements have been retained, but, FHA now adds, equipment carrying a manufacturer's warranty in excess of one year shall be plainly denoted.

Stevens Named To Head Exposition Management

NEW YORK CITY—E. K. Stevens, vice president and treasurer of International Exposition Co., has been elected president, succeeding the late Charles F. Roth.

He also becomes manager of the National Exposition of Power & Mechanical Engineering, International Heating & Ventilating Exposition, and the Exposition of Chemical Industries.

Stevens, a mechanical engineer, joined Roth some 20 years ago as associate manager of these and other expositions, and has served continuously in that capacity.

Alleged 'Con' Man Bilks Dayton Dealers

DAYTON — A 35-year-old man was being held under $10,000 bond in Greene county jail on a fraudulent check charge resulting from an alleged confidence-type racket.

Bound over to the grand jury in Xenia Municipal Court was Robert R. Miller, Moraine City.

James E. Hoyer, 28, Knollwood, who was arrested with Miller in Dayton, was released on his own recognizance pending further investigation. Hoyer operates an appliance store here.

Green County Sheriff Clarence Stewart said it appears Hoyer "was a victim of circumstances."

Miller, an appliance salesman, would go to appliance dealers and show them contracts he supposedly had obtained. He would tell them he was to install, for example, air conditioning in a building. With the explanation that he lacked capital to handle the job, he would ask the dealer to finance it. In return, he said he'd split his profit.

Then, Sheriff Stewart continued, he would give the victim a check for the entire amount he was supposed to be paid for the job, saying it would cover payment of the loan, plus the profit share. The check would bounce.

When victims complained, it was reported, Miller would work the scheme on another dealer to pay off his previous victim.

Plumbers, Steamfitters Told of UMW, AFL Inroads Into Refrigeration Field

TOLEDO—A warning to representatives of the United Association of Plumbers and Steamfitters Union (AFL) to step up organizing campaigns to meet inroads being made by John L. Lewis in the construction industry and by rival AFL groups in the refrigeration and air conditioning industries was issued here by Martin P. Durkin, United Association president.

Speaking before the state convention of the union here, Durkin warned that Lewis' District 50 of the United Mine Workers is invading the jurisdiction of the AFL building trades unions in Ohio, Pennsylvania, and West Virginia.

In addition, the AFL Teamsters, Sheet Metal Workers, Machinists, and Electrical Workers are all vieing with the United Association for control of the refrigeration and air conditioning fields, he added.

Durkin also called for renewed efforts by the union to regain control of "much work that formerly was done by us but now is non-union."

He said the boom in industrial construction produced by World War II had resulted in a spread of non-union construction work.

In addition to more intensive organizing, he asked for improvement in the union's apprenticeship training program so "that we will have well-trained men who are able to do all of the jobs that come under the jurisdiction claimed by the Plumbers and Pipefitters."

Can't Strip So They Strike

STEUBENVILLE, Ohio — "You can put on more clothes to keep warm, but you can't take off enough to keep cool," declared a toll operator for the Ohio Bell Telephone Co. here as 76 of them walked off their jobs in 90° F. heat demanding air conditioning. They also claimed that the fans used made too much noise.

Hotpoint Filter Ads--

(Concluded from Page 1, Col. 4)

peared in June and July issues of *The New Yorker* and *Time*. An ad in the latter publication featured the above claim under the heading: "The most important air-conditioning news of 1954."

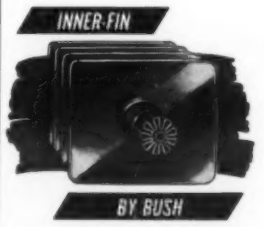
Watterson explained that his complaint was based on the belief of the Air Filter Institute, trade association of filter equipment manufacturers, that the Hotpoint filter is non-electronic and probably doesn't trap 102% more dust, dirt, etc. than any other air conditioner or any other filter.

Hotpoint says its filter is a woven plastic mesh that "works like rubbing a comb." Air passing through the filter generates a charge of static electricity that helps trap impurities, they said.

Inner-Fin coils . . . a BUSH exclusive . . . represent the first really *new* development in heat transfer engineering since finned coil replaced bare pipe.

BUSH Inner-Fin, now being widely used in window air conditioners, packaged units, etc., provides a *higher* rate of heat transfer in *less* space . . . permits manufacturers more flexibility in design of their units, compactness in construction.

Perhaps Inner-Fin can be utilized to make *your* heat transfer products better. Drop a line. We'll be glad to talk it over.



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